

Schlumberger

Company: ENCANA OIL & GAS (USA) INC

Well: HMU 6-11A (J6SEB)

Field: MAMM CREEK

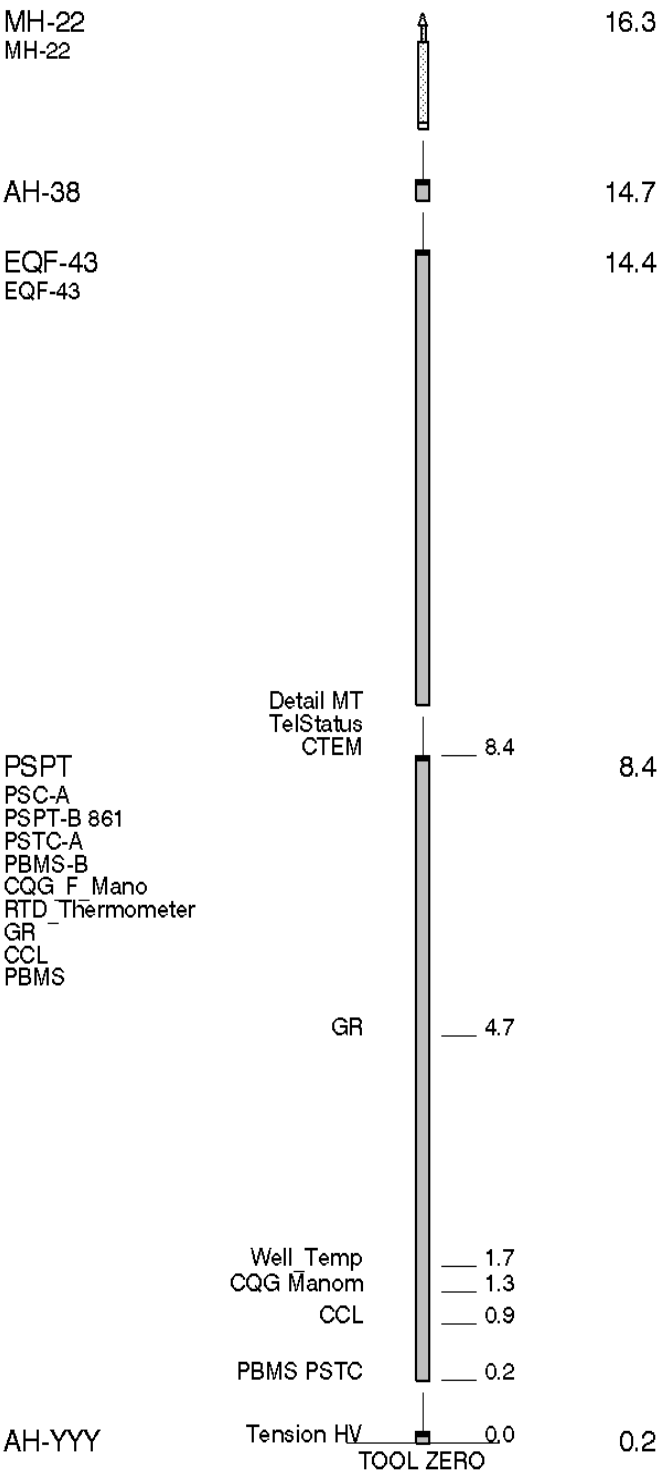
County: GARFIELD State: COLORADO

TEMPERATURE LOG
CCL - TEMPERATURE

County: GARFIELD
Field: MAMM CREEK
Location: SHL: 1957 FSL & 1920 FEL
Well: HMU 6-11A (J6SEB)
Company: ENCANA OIL & GAS (USA) INC

LOCATION			
SHL: 1957 FSL & 1920 FEL BHL: 2358 FSL & 1352 FWL		Elev.: K.B. 7165.00 ft G.L. 7143.00 ft D.F. 7164.00 ft	
Permanent Datum:	GROUND LEVEL	Elev.: 7143.00 ft	
Log Measured From:	KELLY BUSHING	22.00 ft above Perm. Datum	
Drilling Measured From:	KELLY BUSHING		
API Serial No.	05-045-21938-00	Section 6	Township 8S Range 92W
Logging Date	9-Nov-2013		
Run Number	1		
Depth Driller	9872 ft		
Schlumberger Depth	9872 ft		
Bottom Log Interval	9872 ft		
Top Log Interval	0 ft		
Casing Fluid Type	FRESH WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	8.750 in		
From	0 ft		
To	9872 ft		
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade			
From	0 ft		
To	9872 ft		
Maximum Recorded Temperatures	232 degF		
Logger On Bottom	9-Nov-2013	20:30	
Unit Number	403	VERNAL	
Recorded By	JASON BARRY		
Witnessed By	TONY KETTERLING		

PVT DATA			
Oil Density	Run 1	Run 2	Run
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation			
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom			
Unit Number			
Recorded By			
Witnessed By			



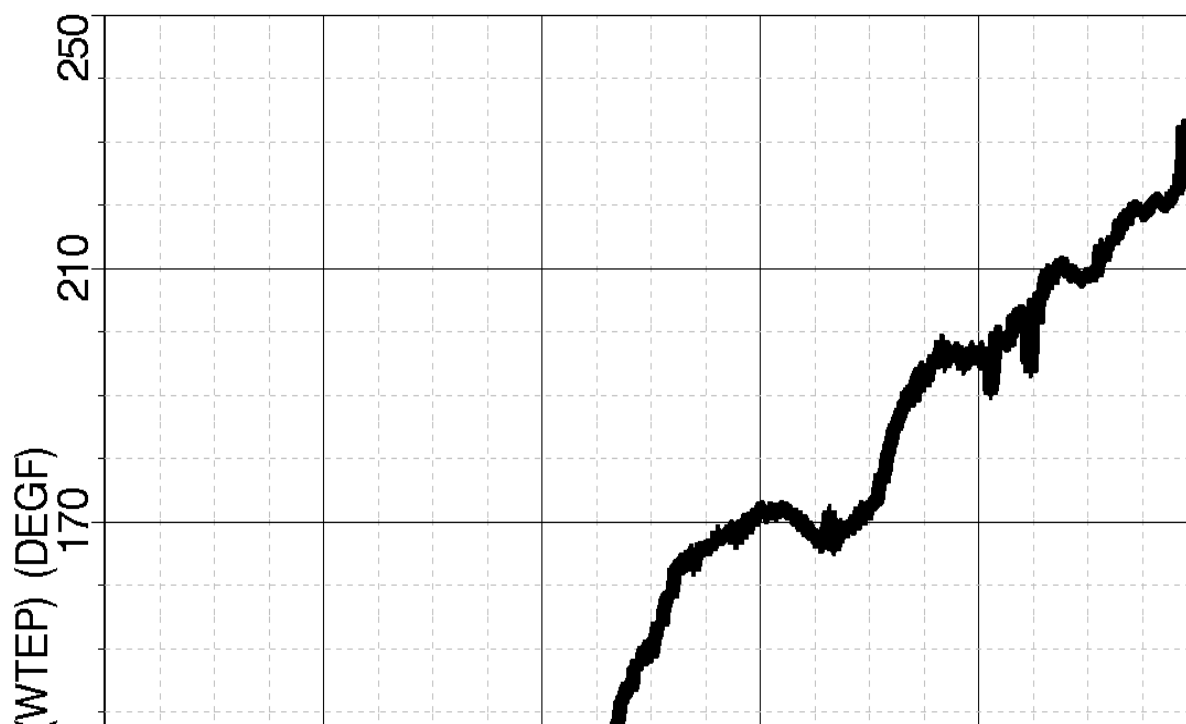
MAXIMUM STRING DIAMETER 1.69 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET



TEMPERATURE PLOT

MAXIS Field Log

Index: 9889.0 - -7.5 FT





MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC

Well: HMU 6-11A (J6SEB)

Input DLIS Files

DEFAULT	FLIP_PSP_004	PRODUCER	09-Nov-2013 20:25	9889.4 FT	-7.5 FT
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Output DLIS Files

DEFAULT	PSP_008PUP	FN:5	PRODUCER	09-Nov-2013 20:35	9889.0 FT	-7.5 FT
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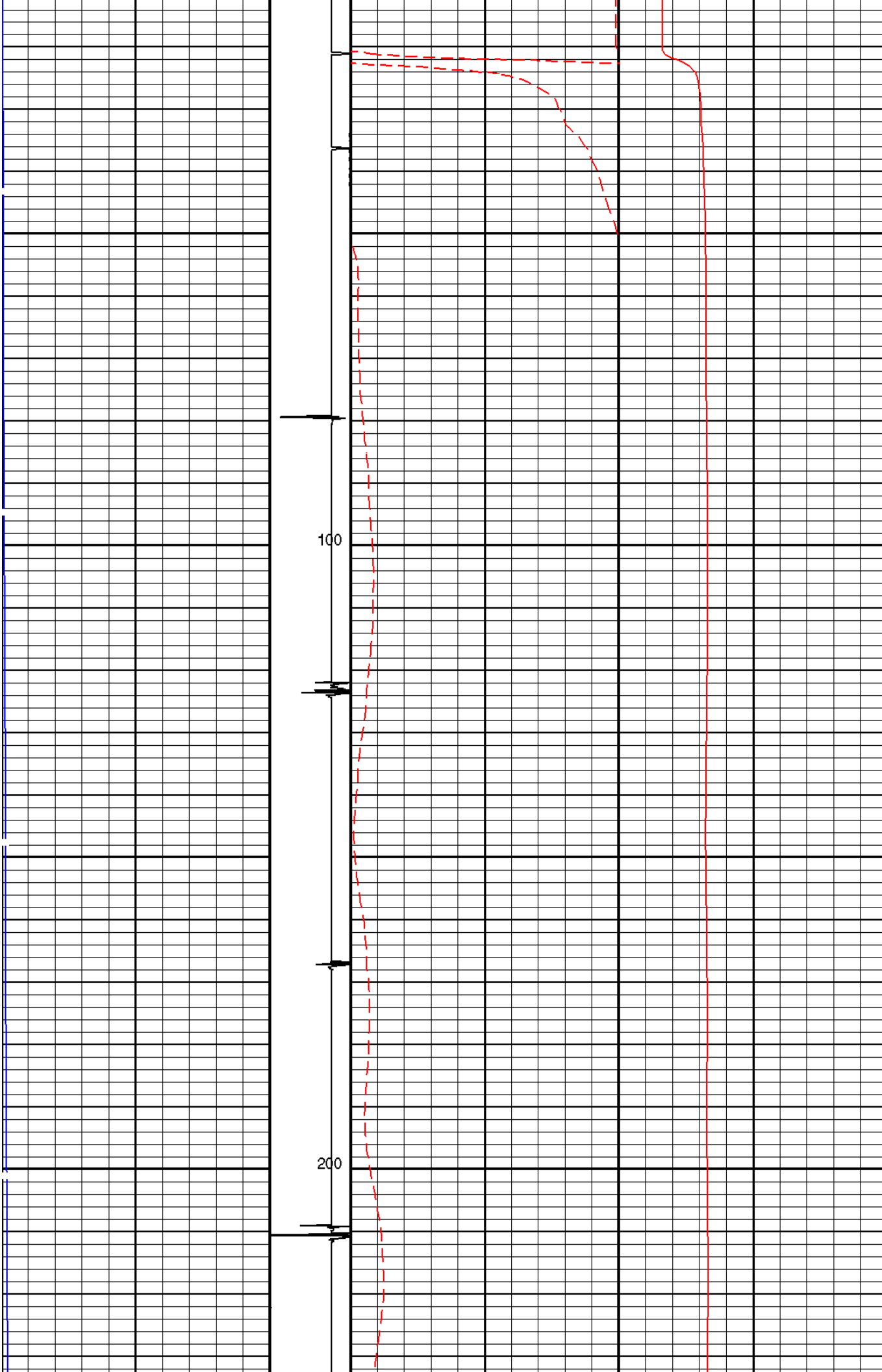
OP System Version: 18C0-147

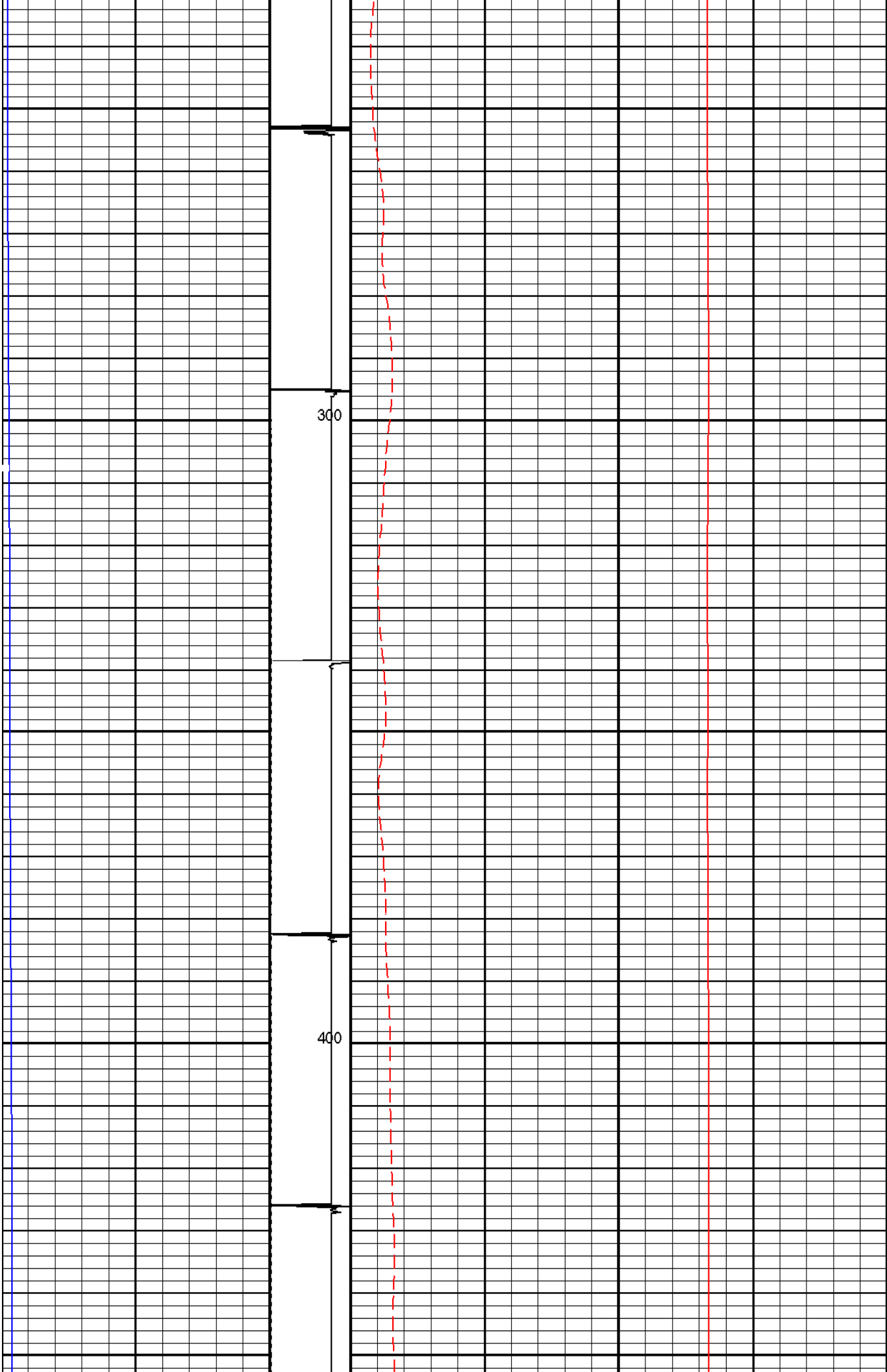
PSPT 18C0-147

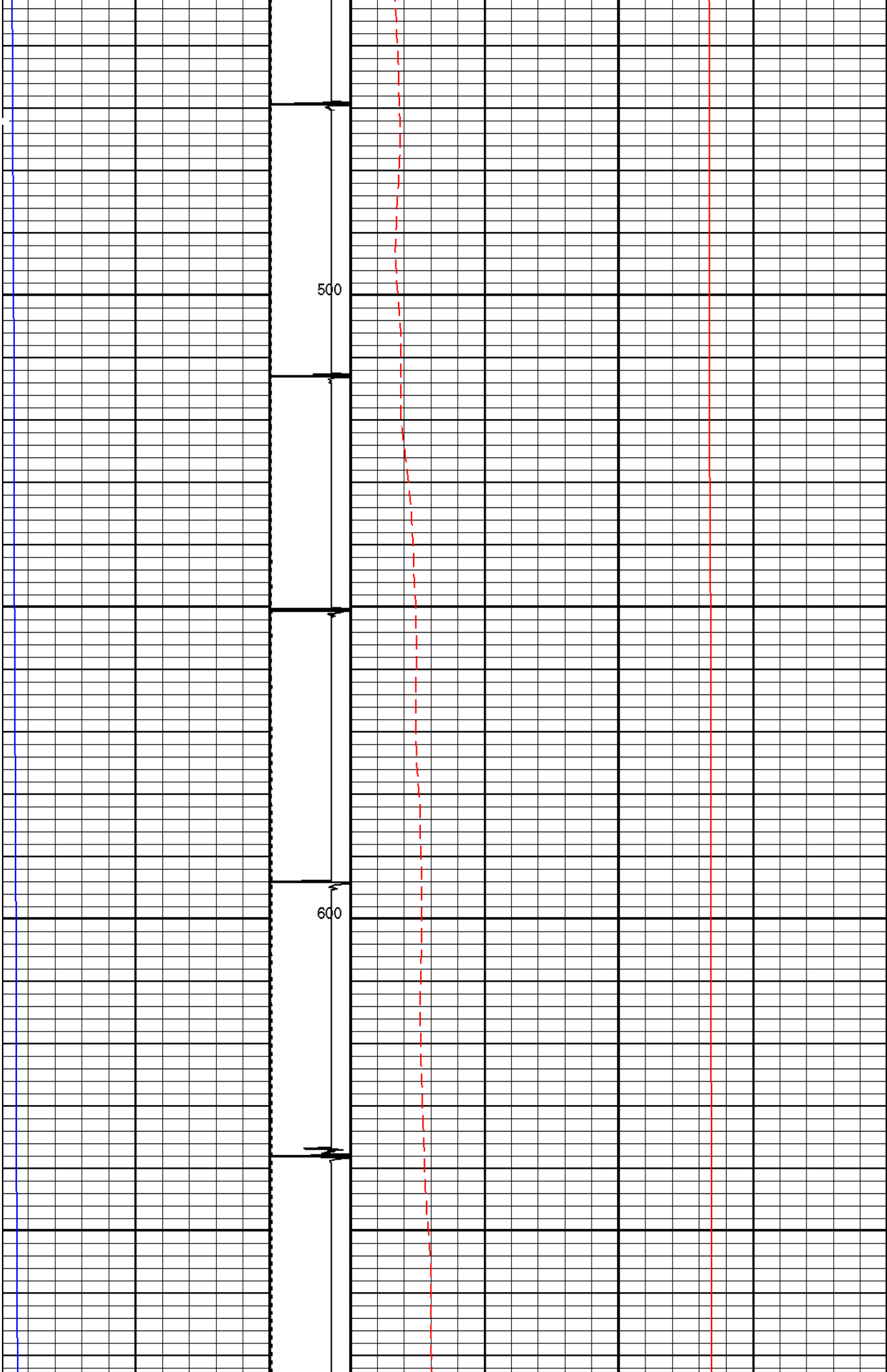
PIP SUMMARY

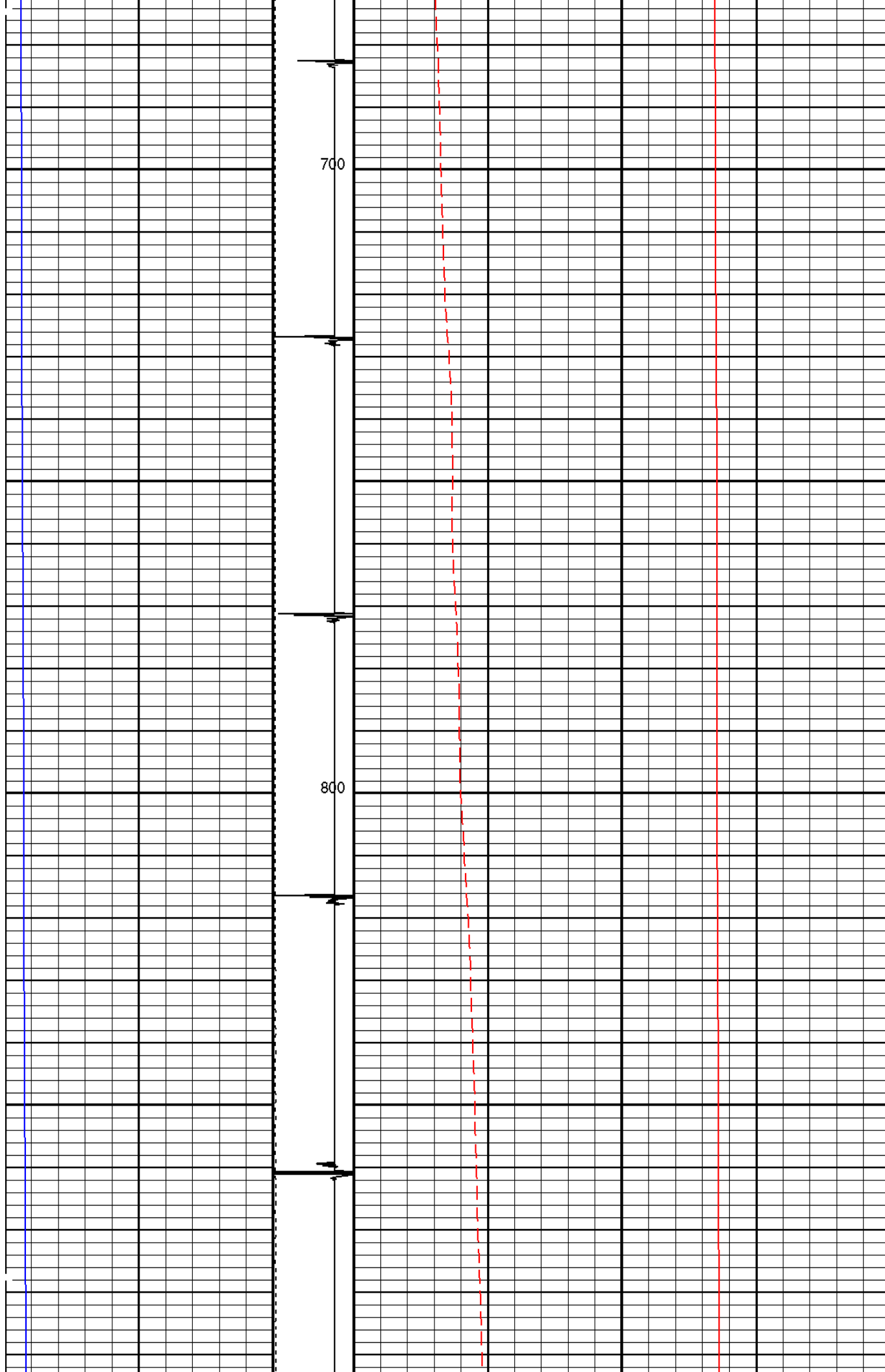
Time Mark Every 60 S

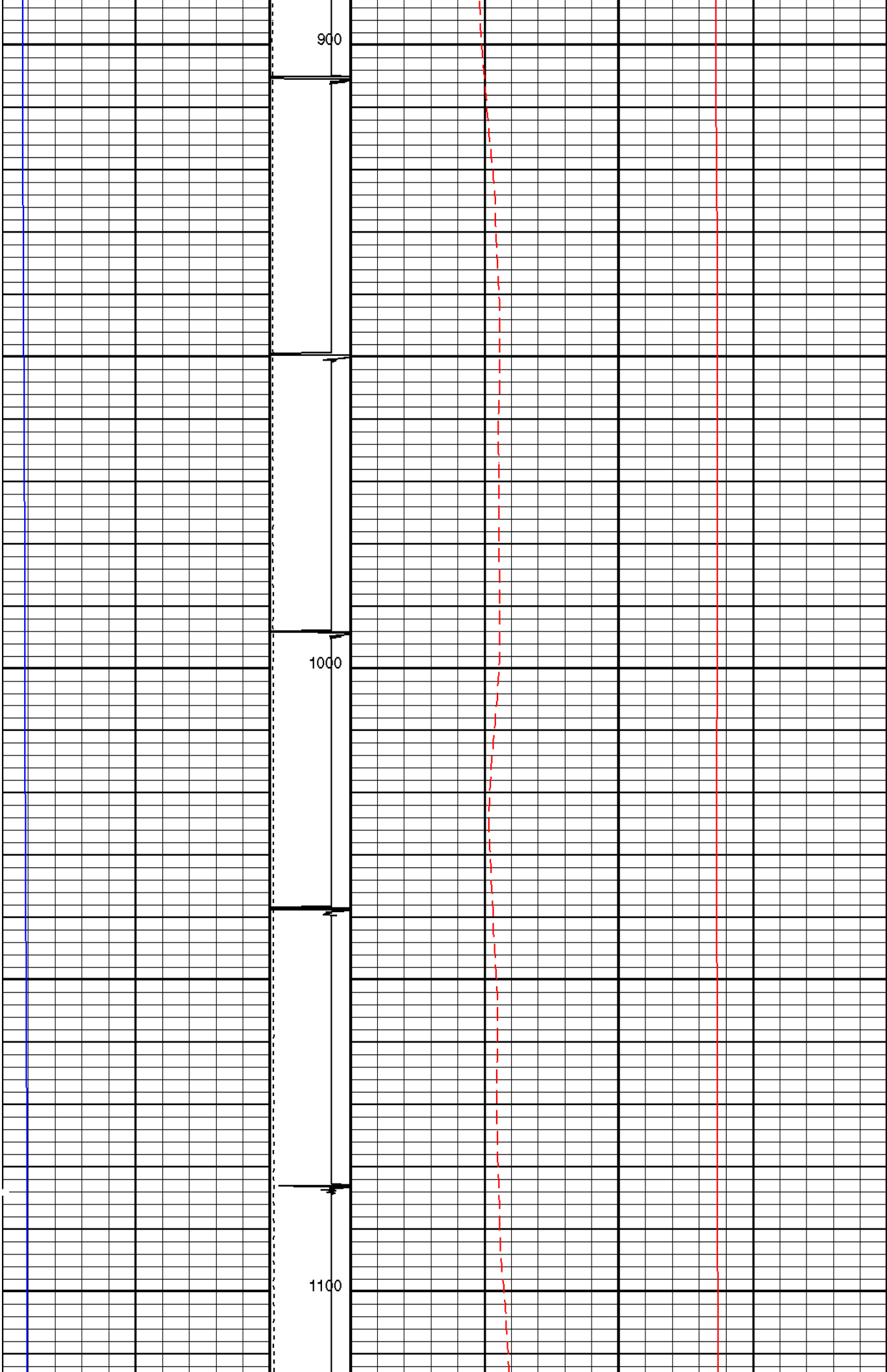
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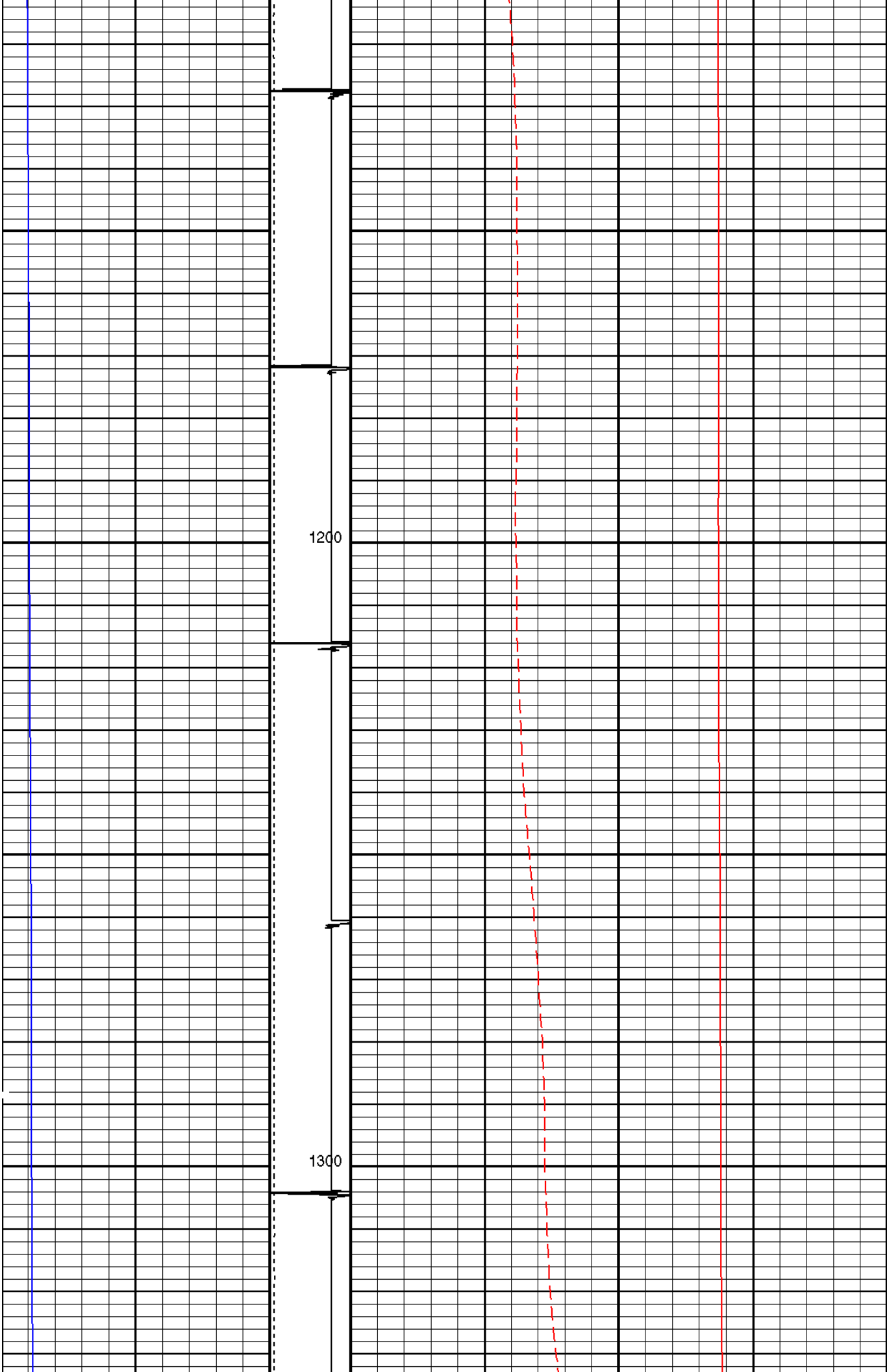


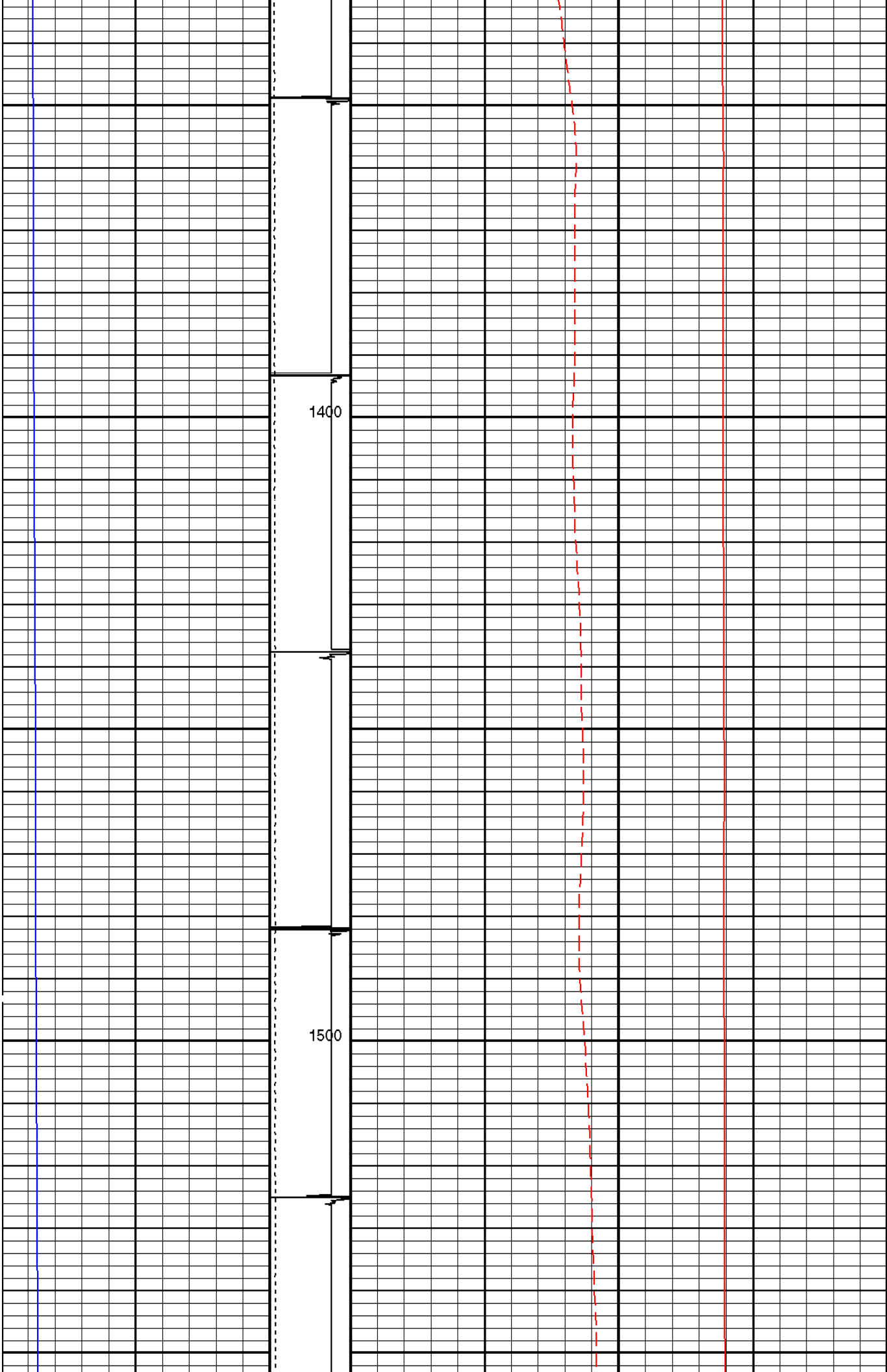


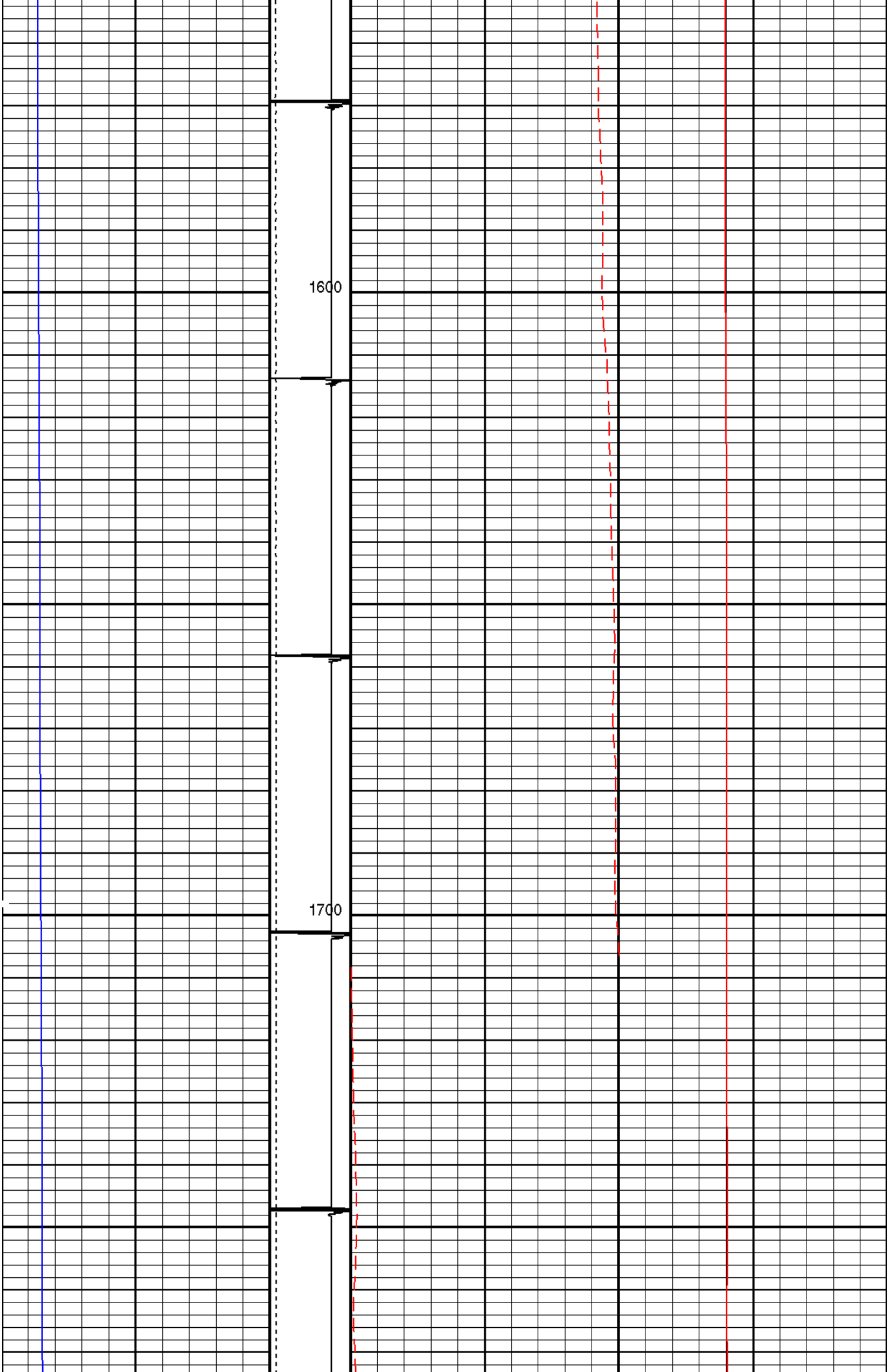


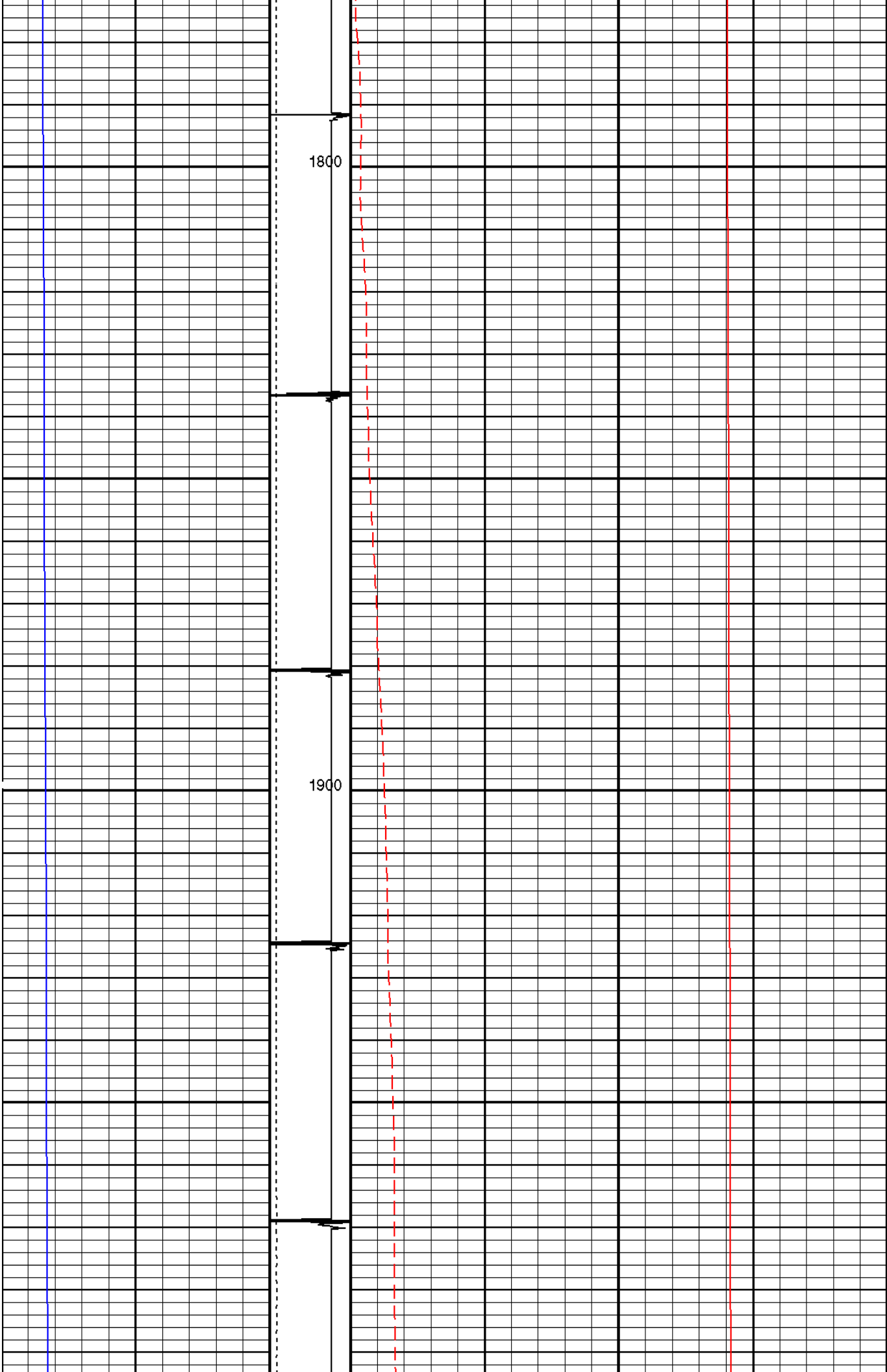


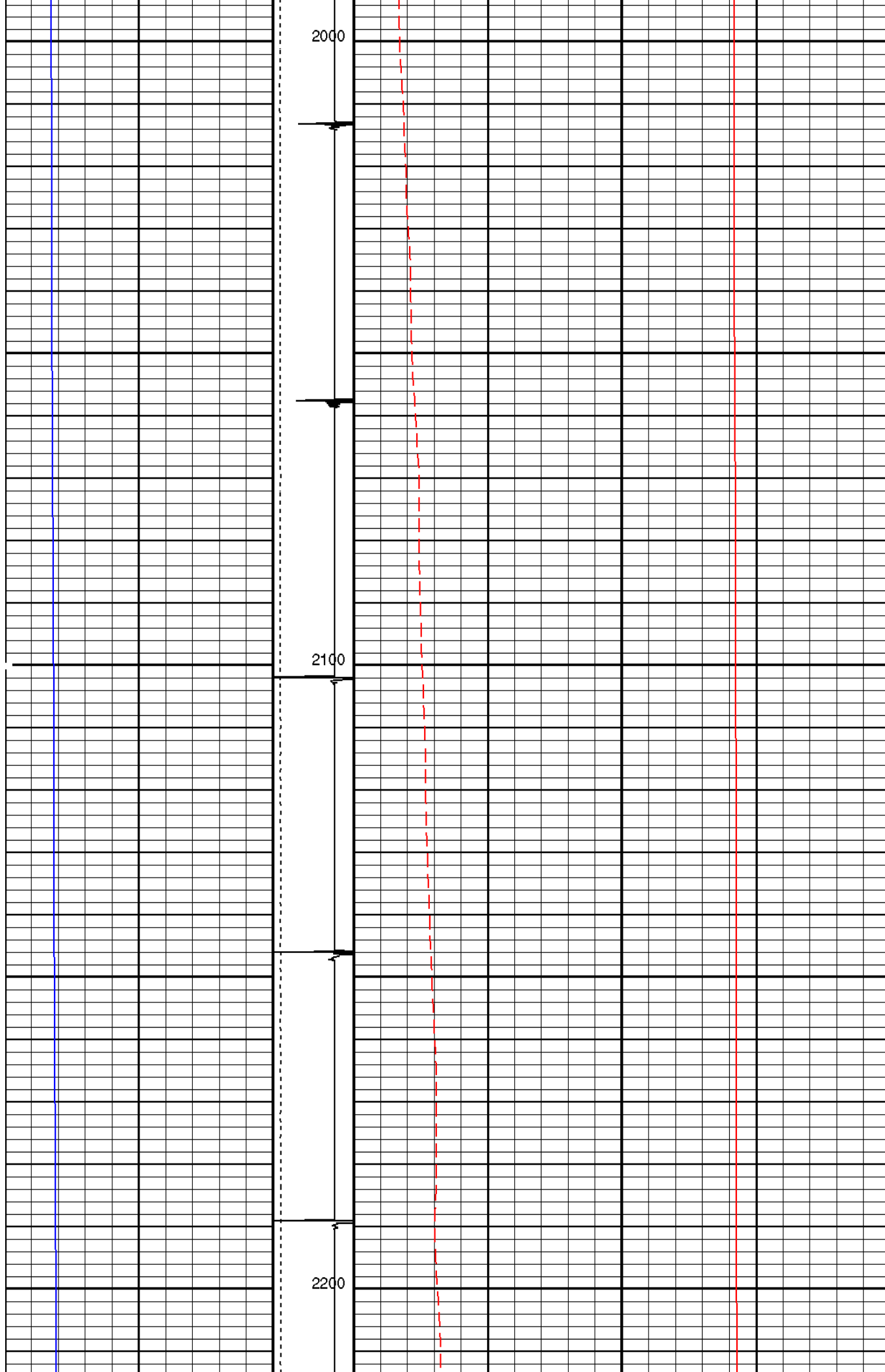


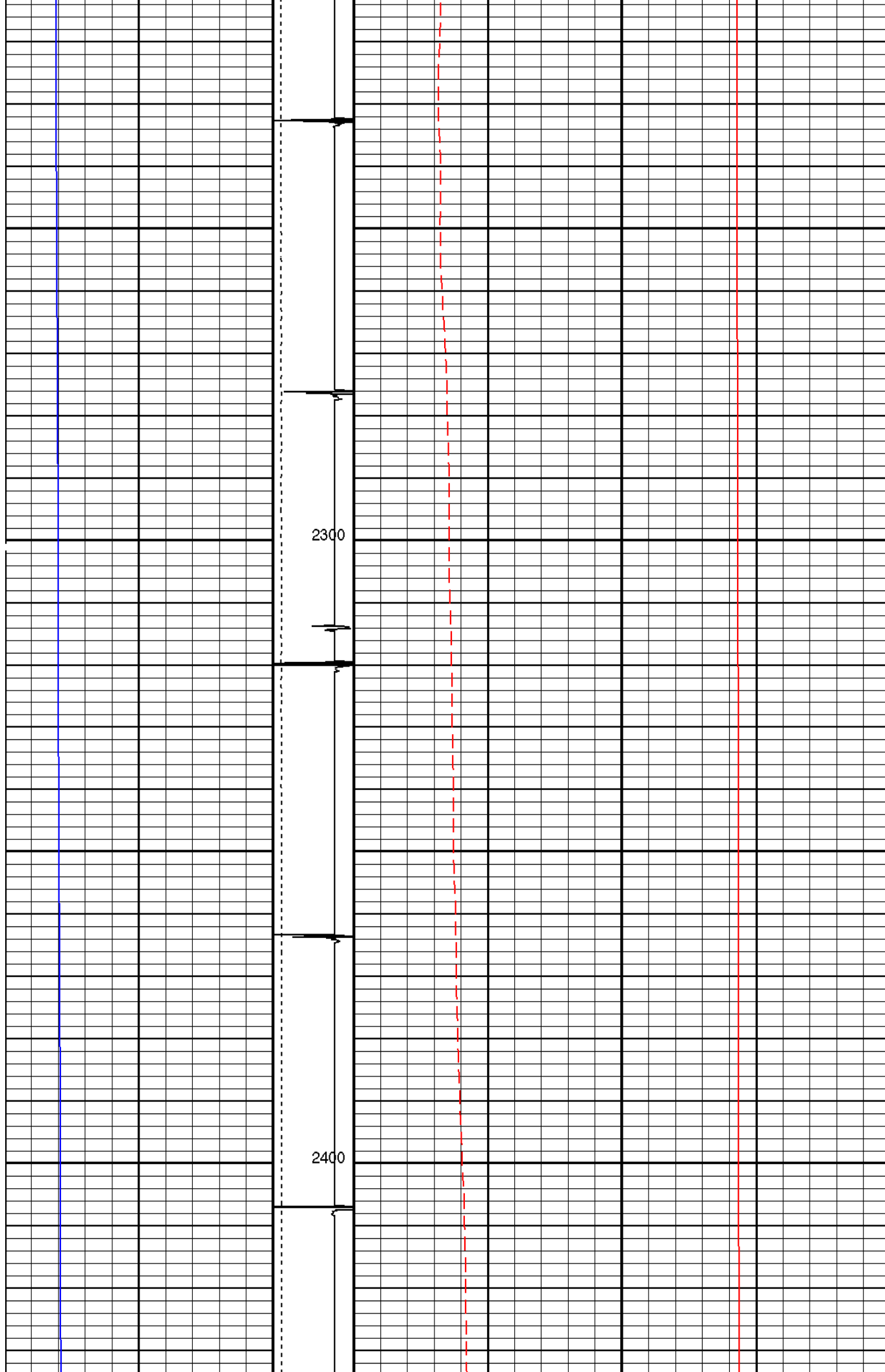


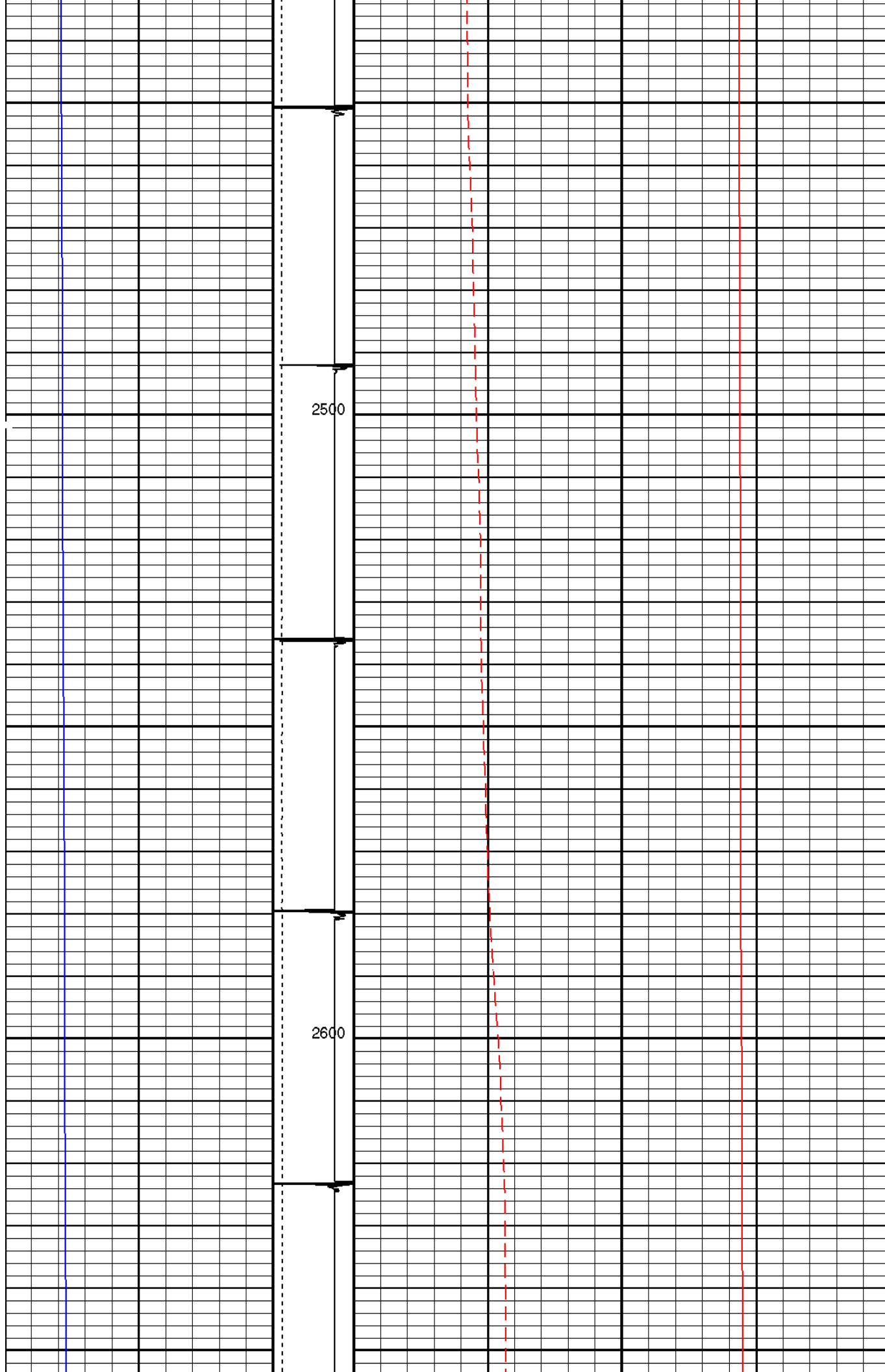


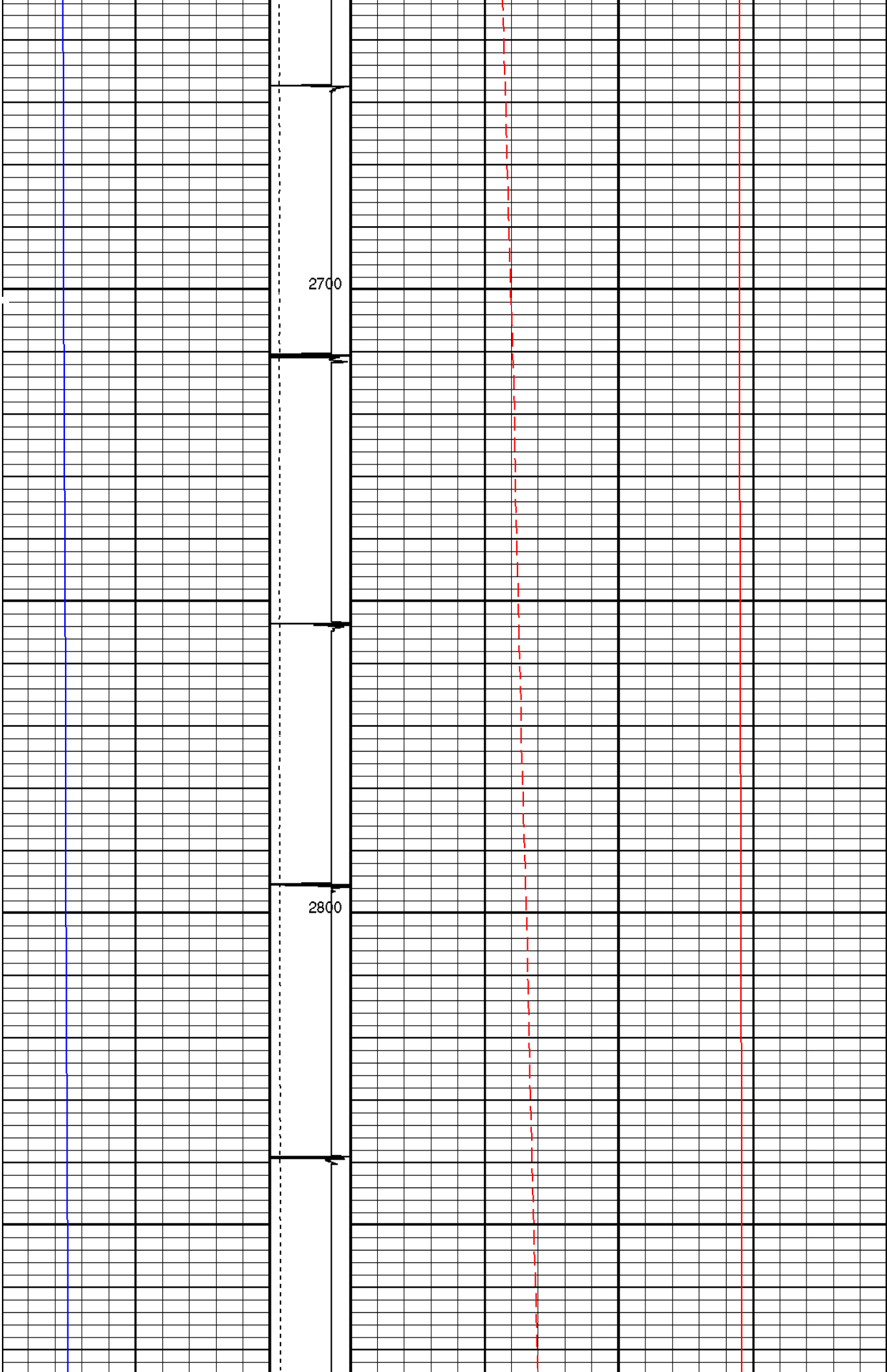


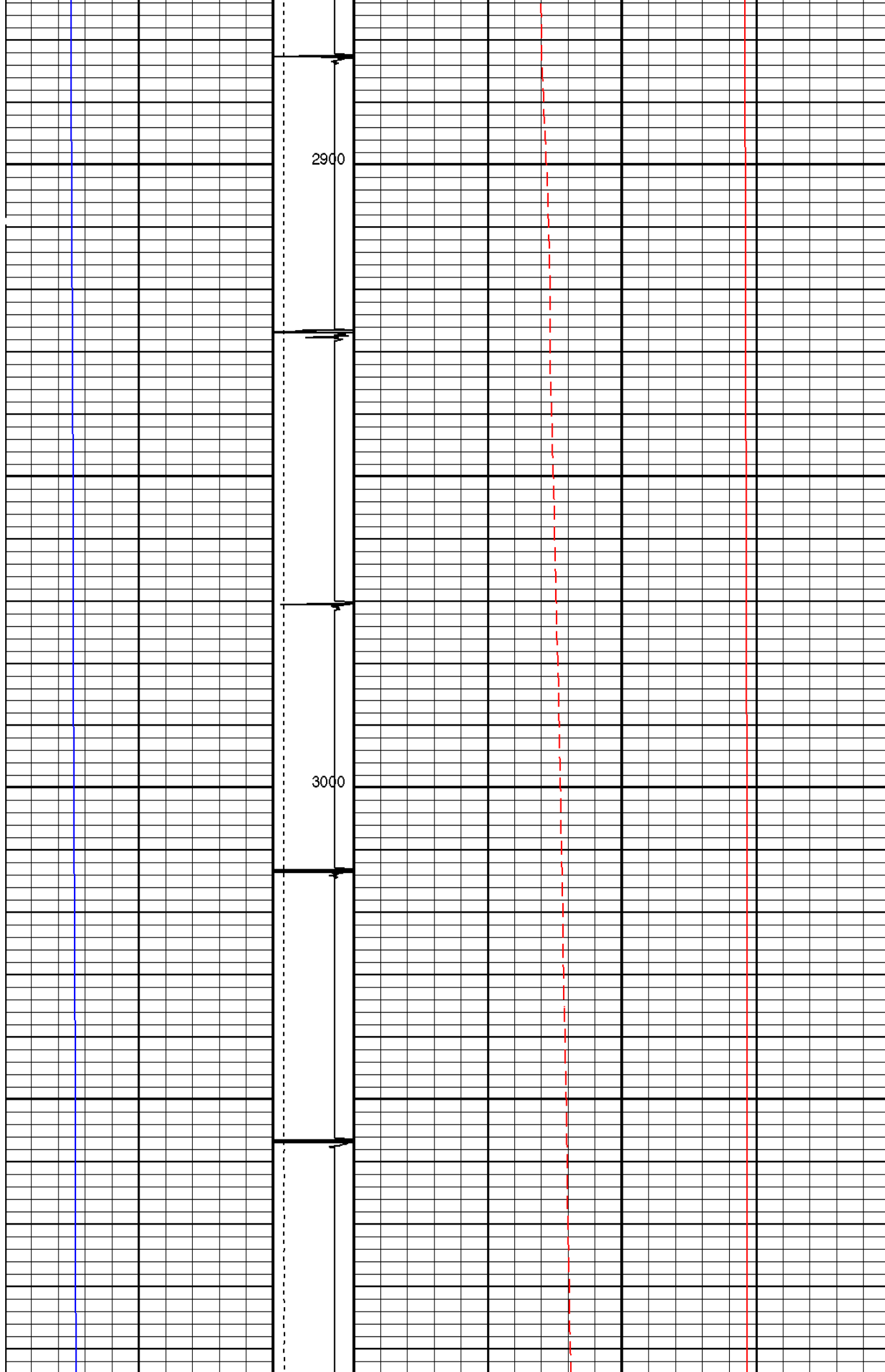


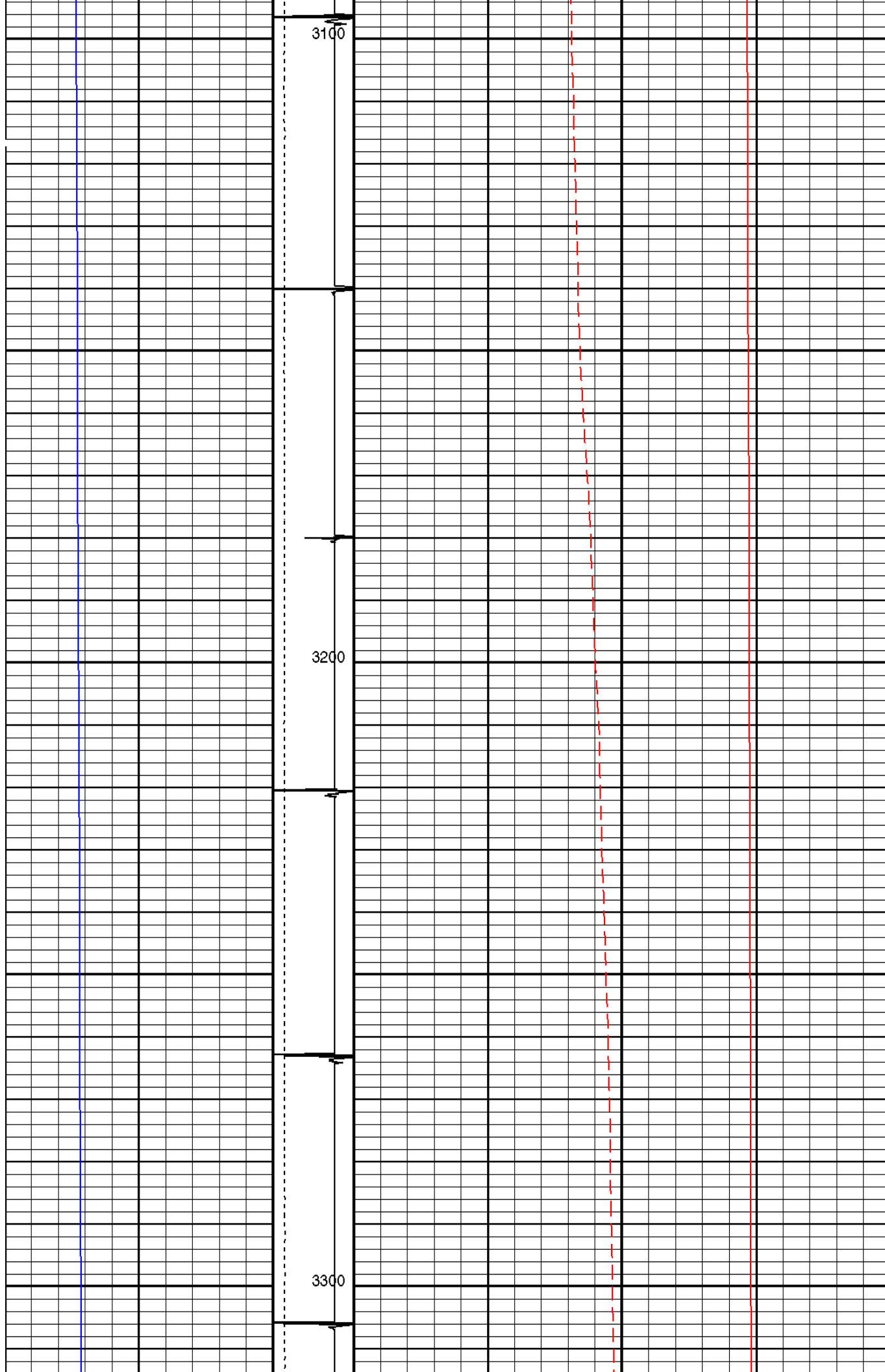


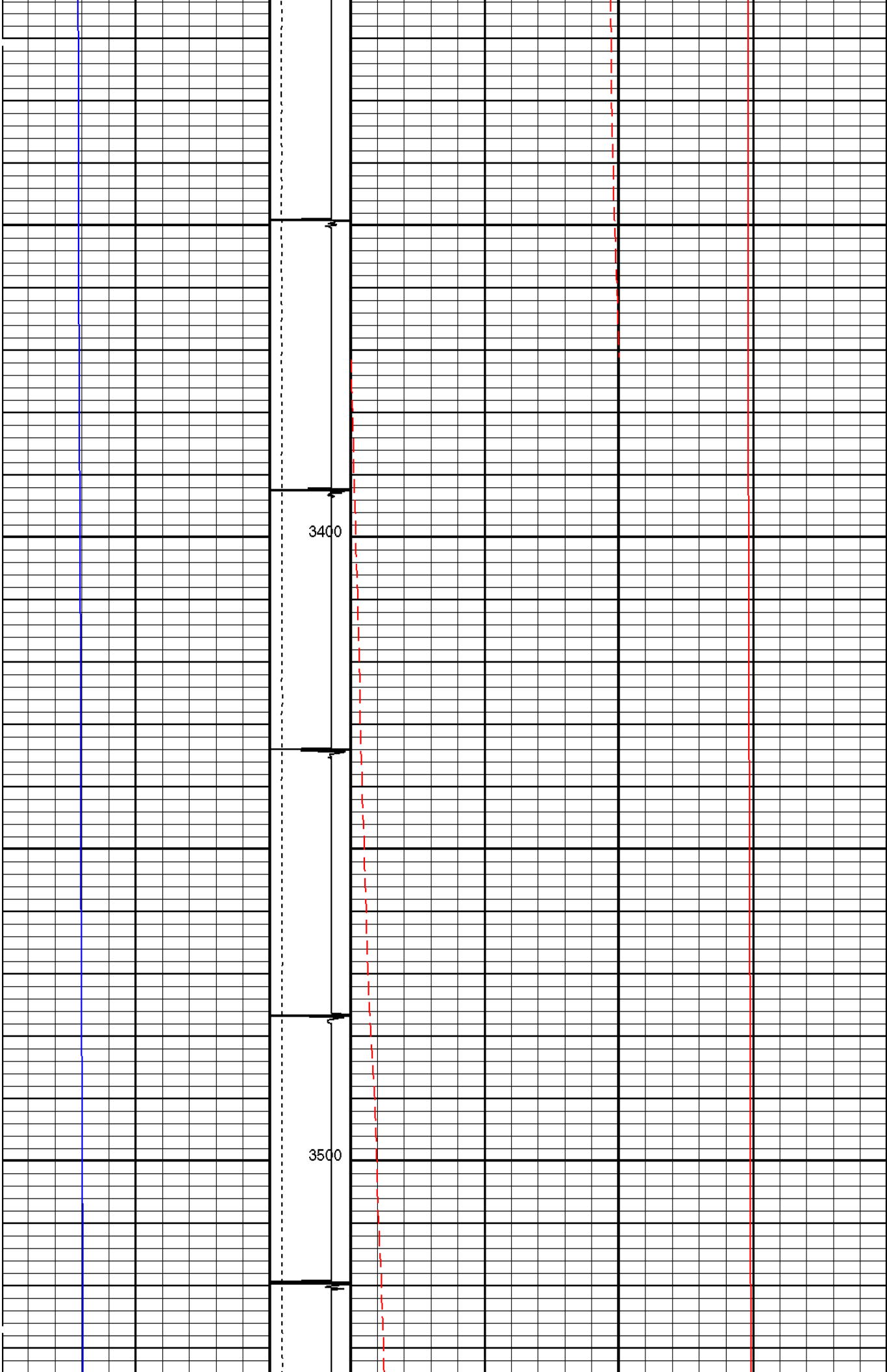


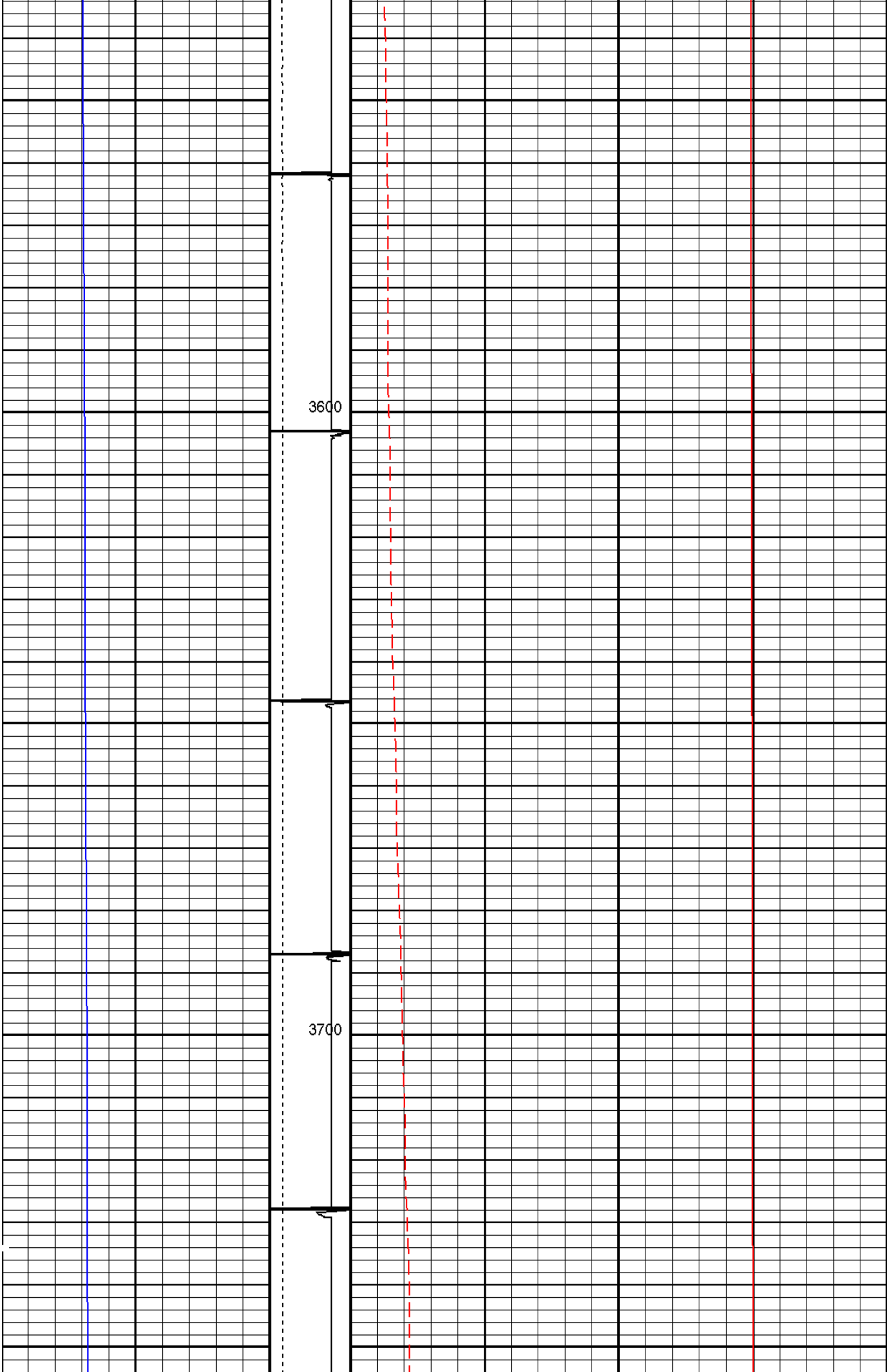


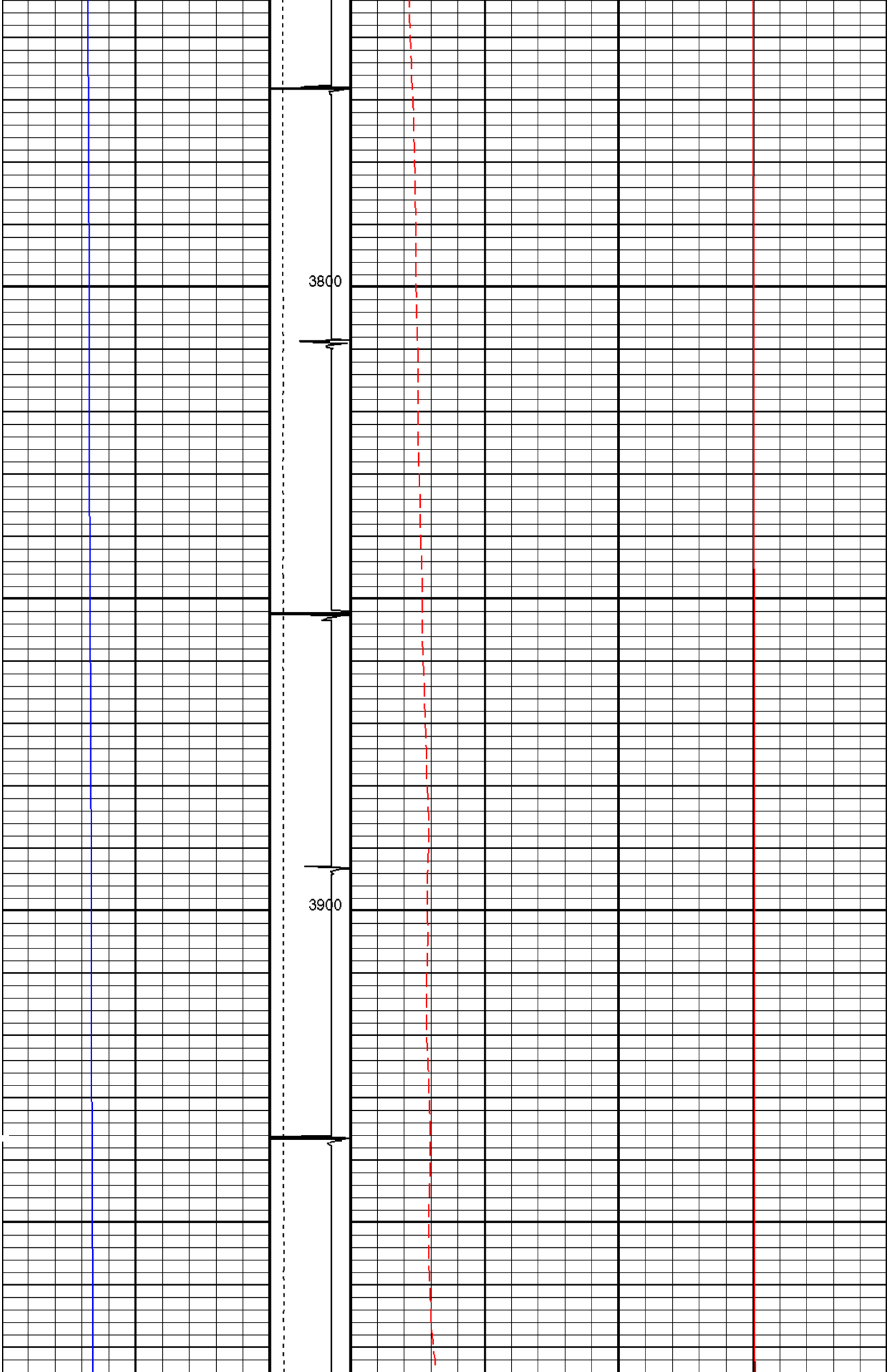


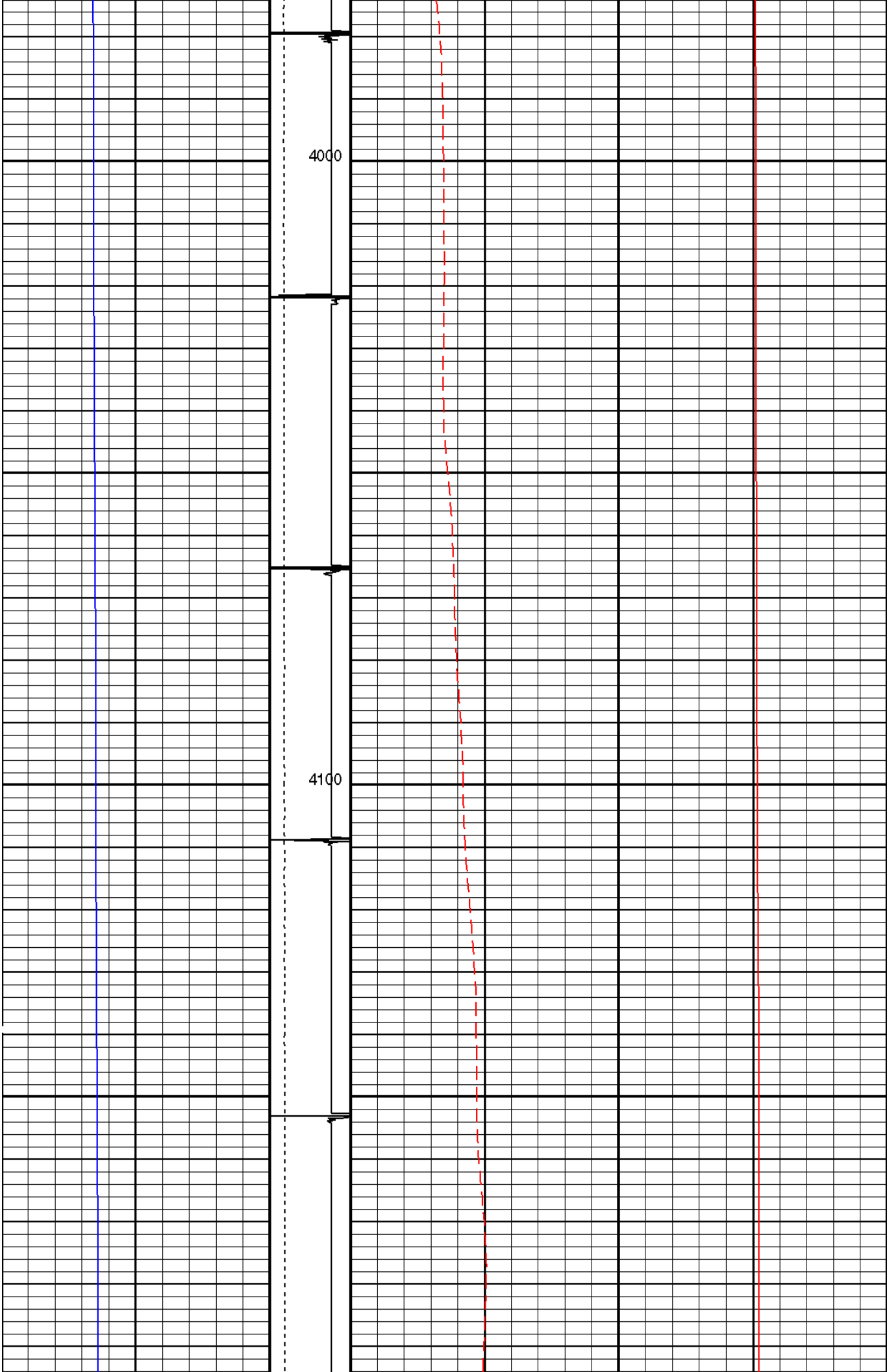


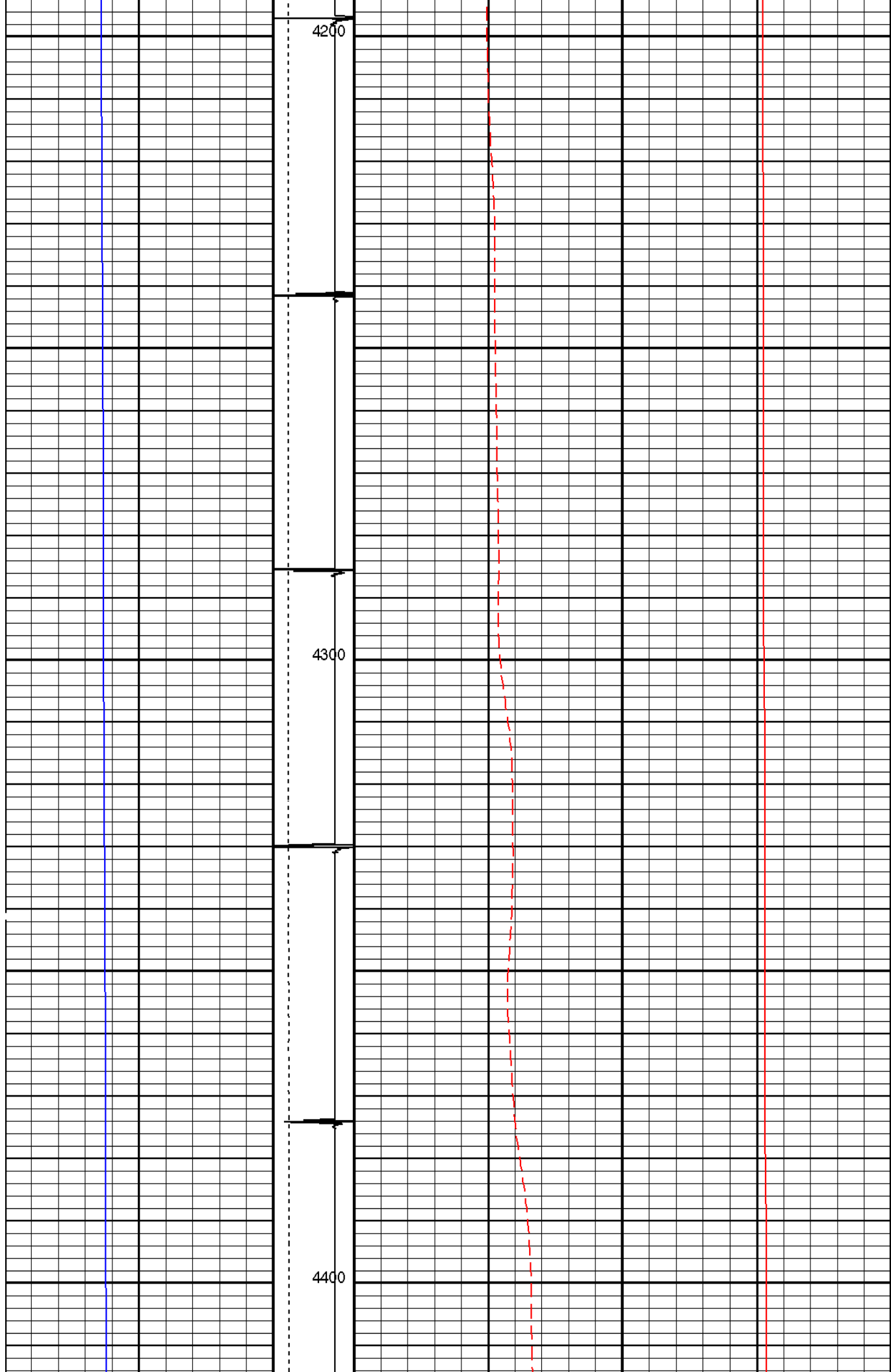


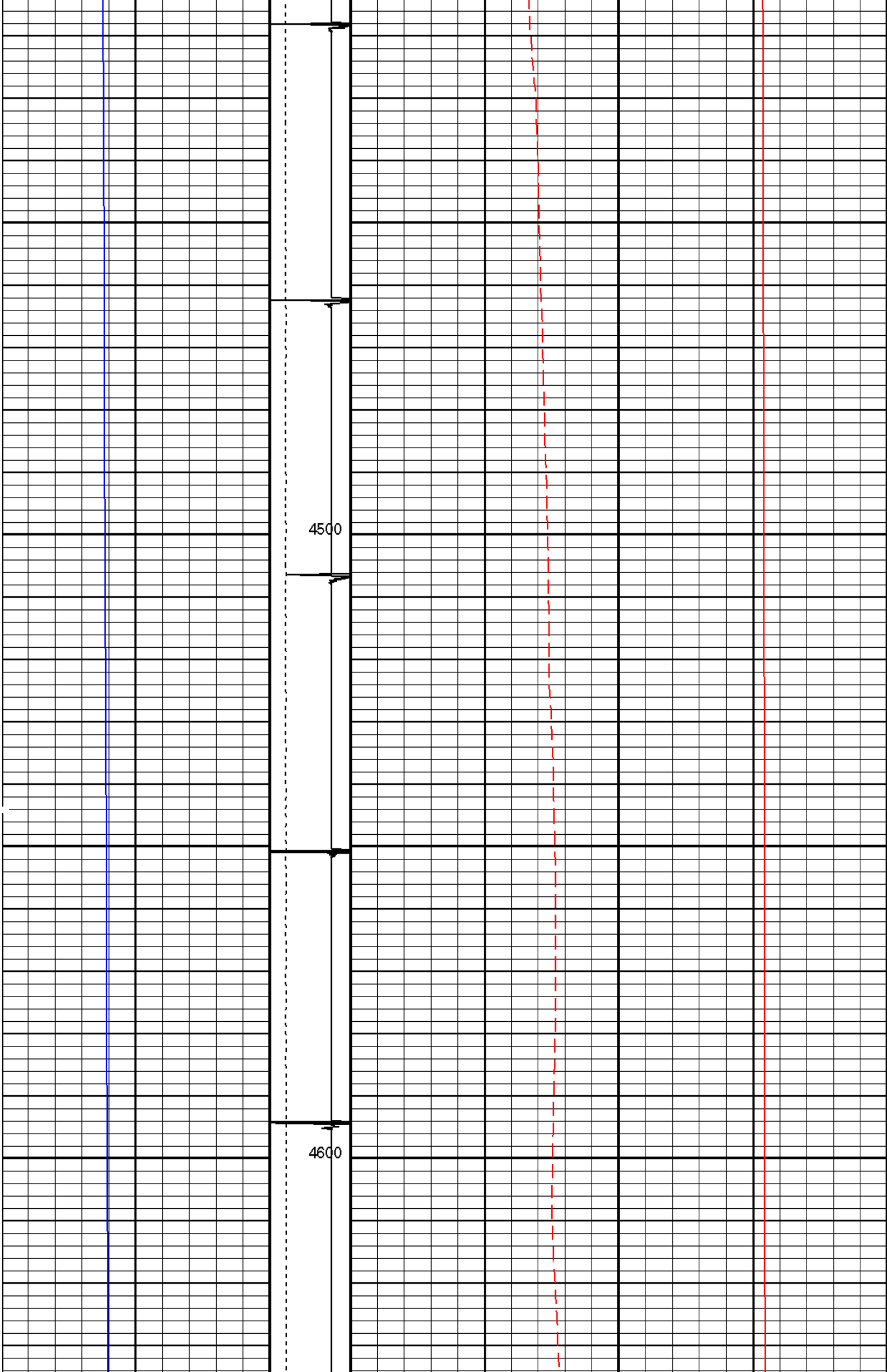


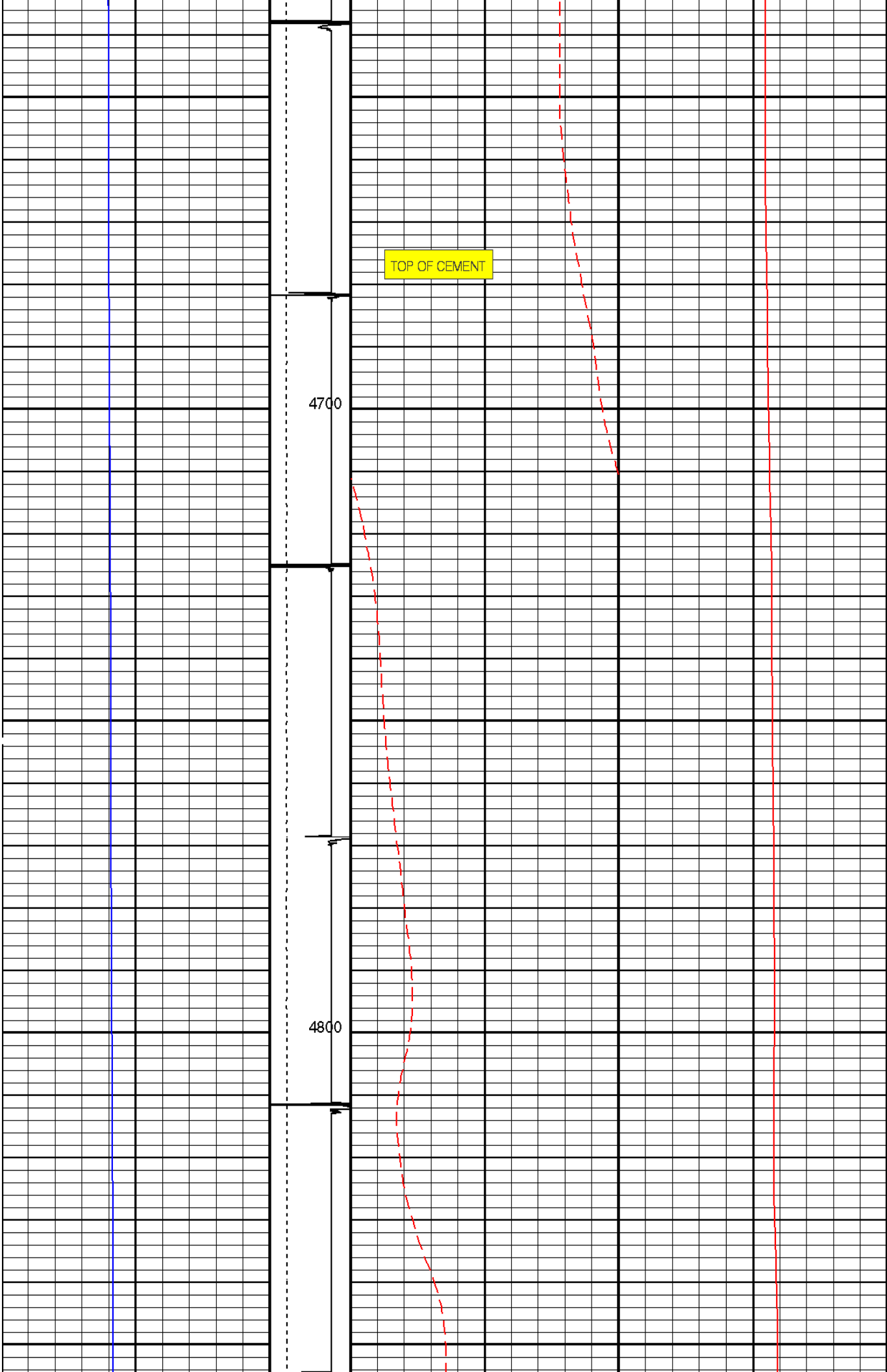


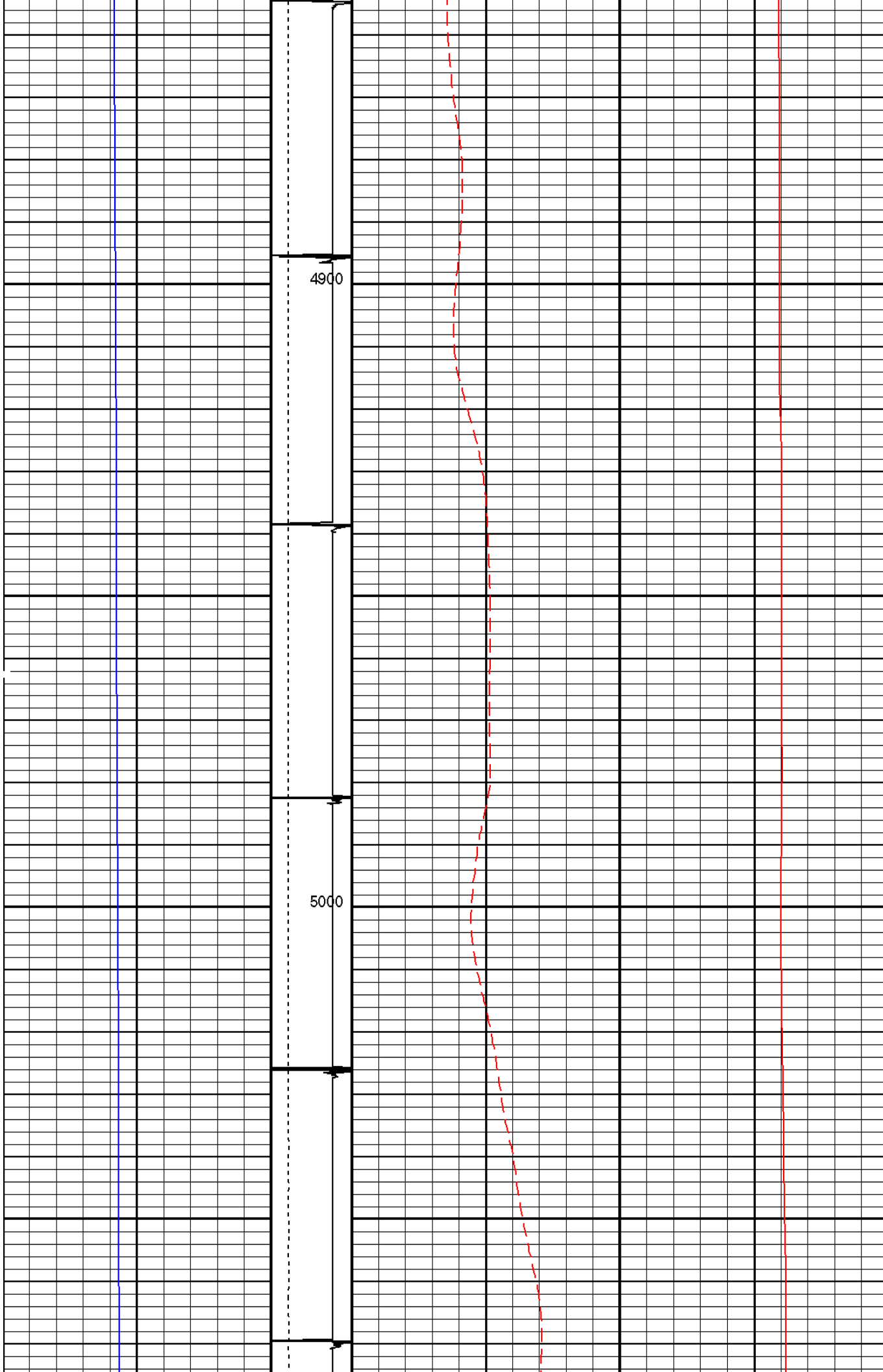


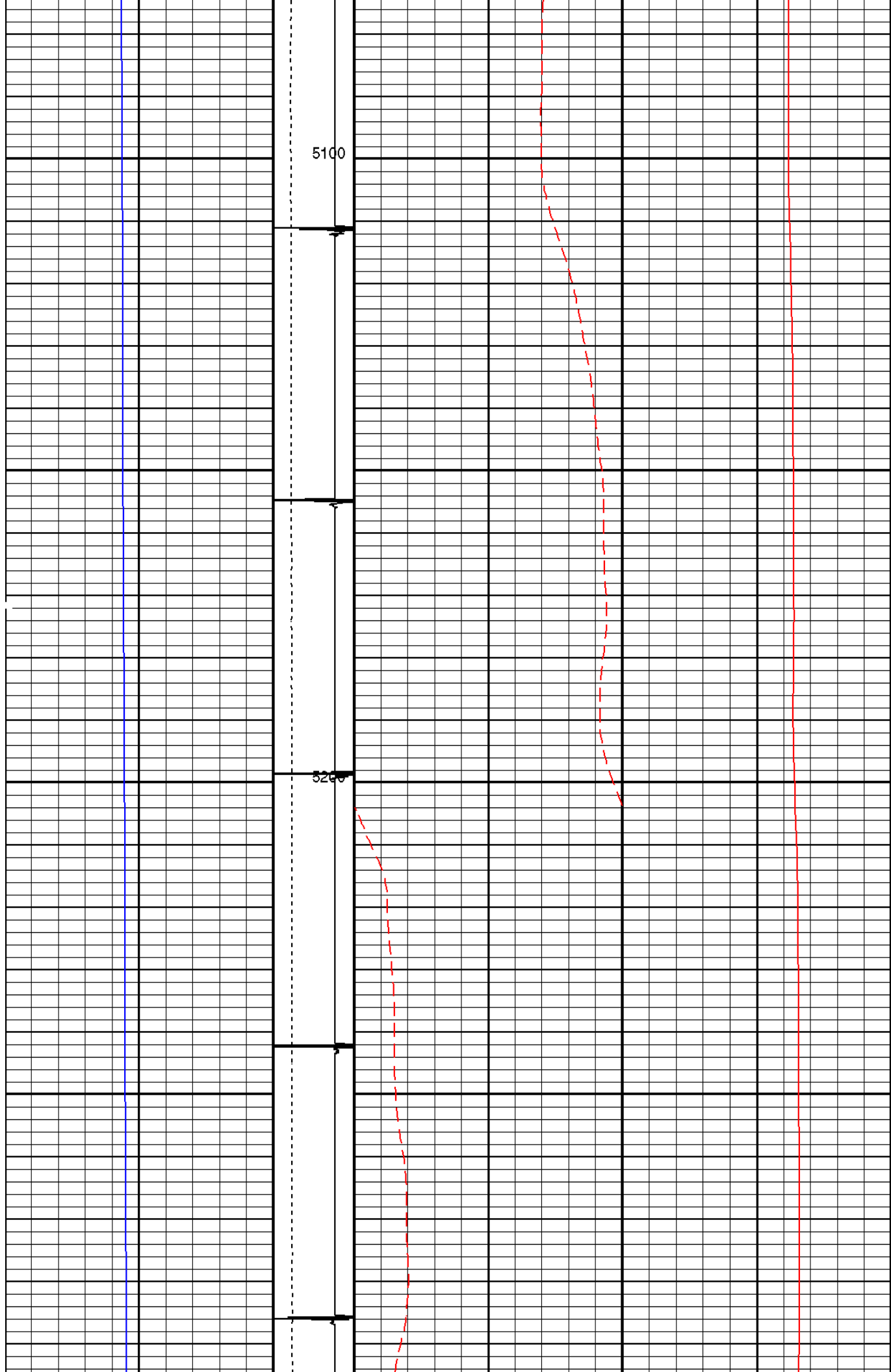


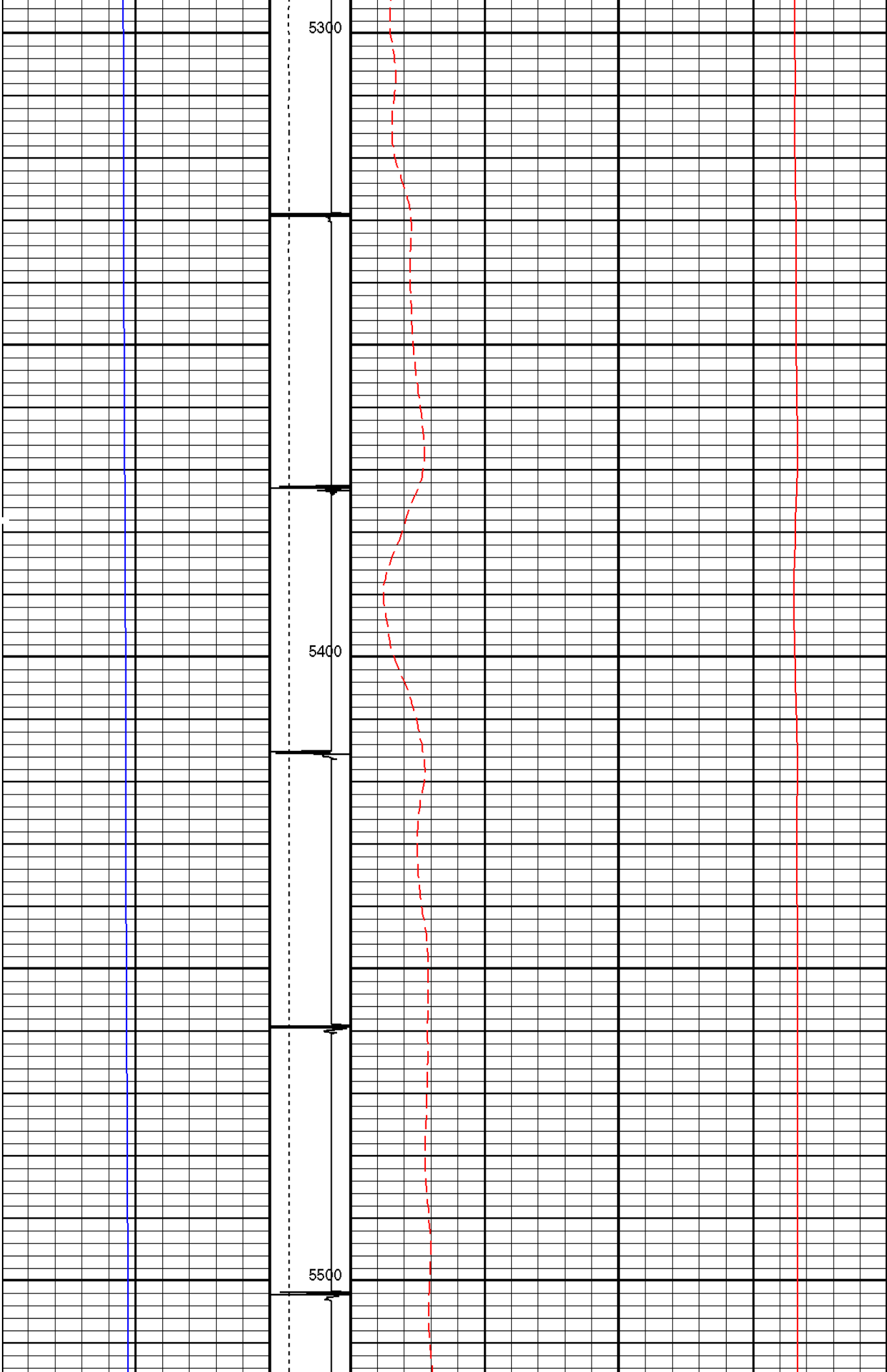


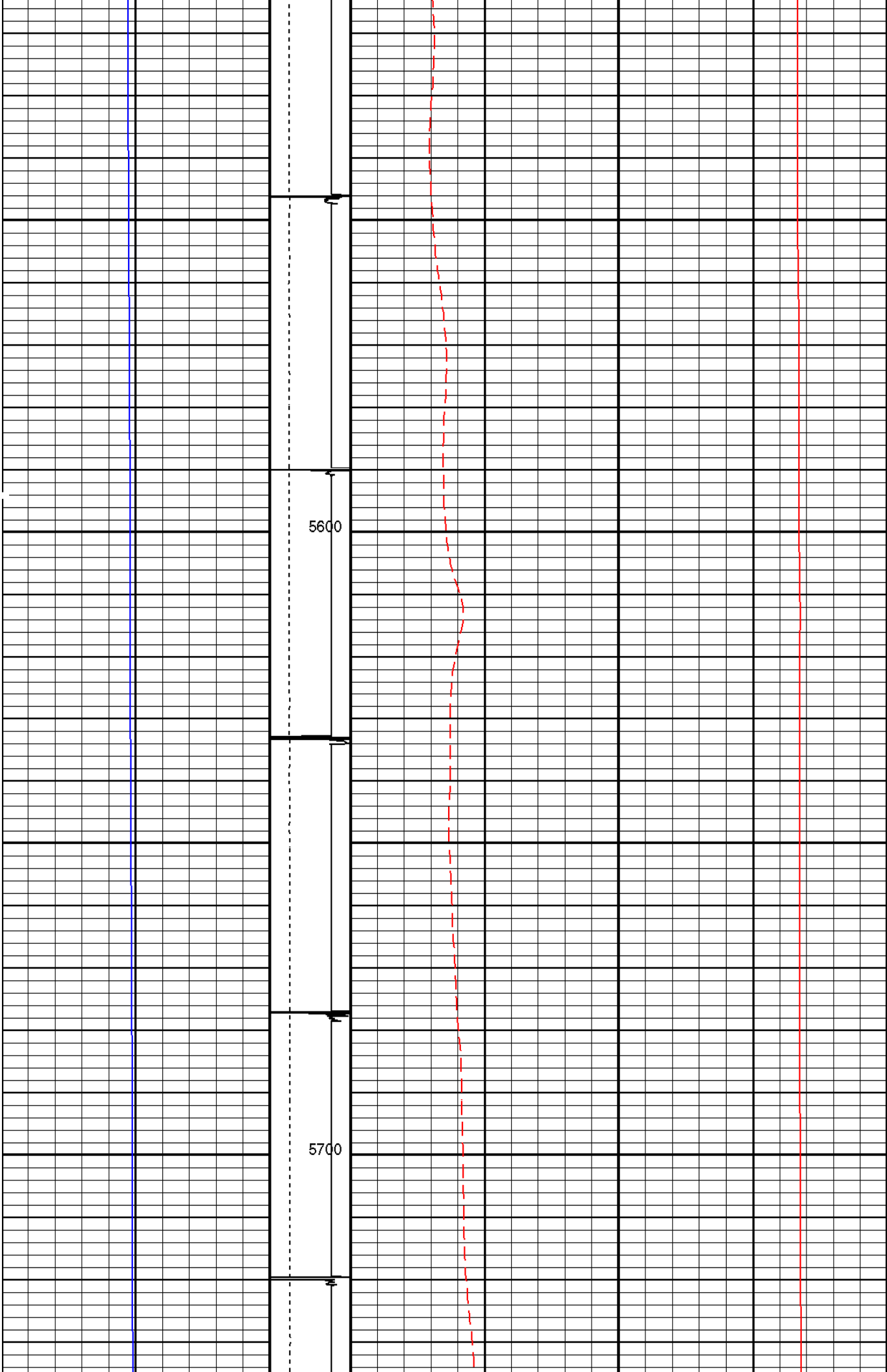


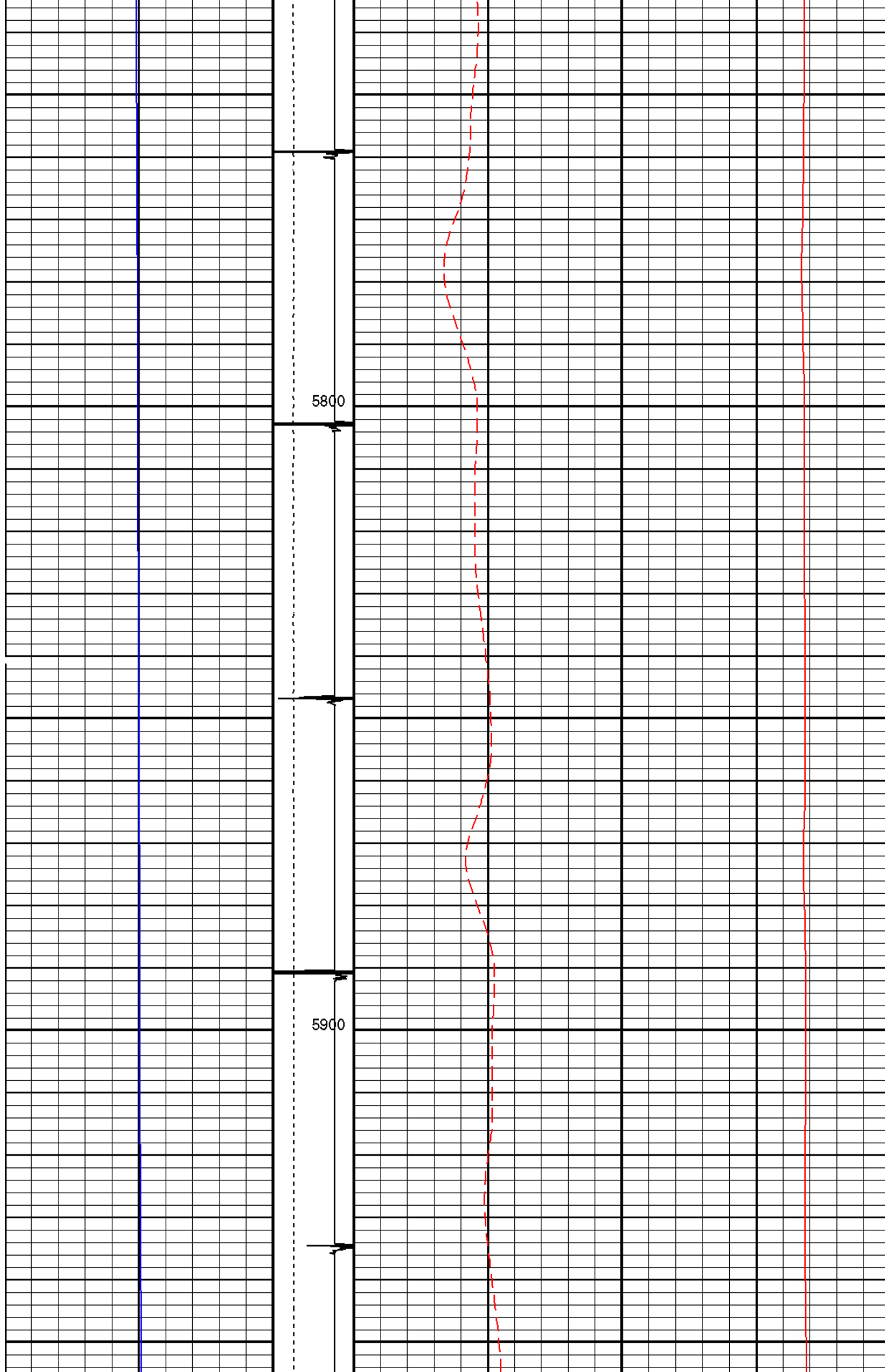


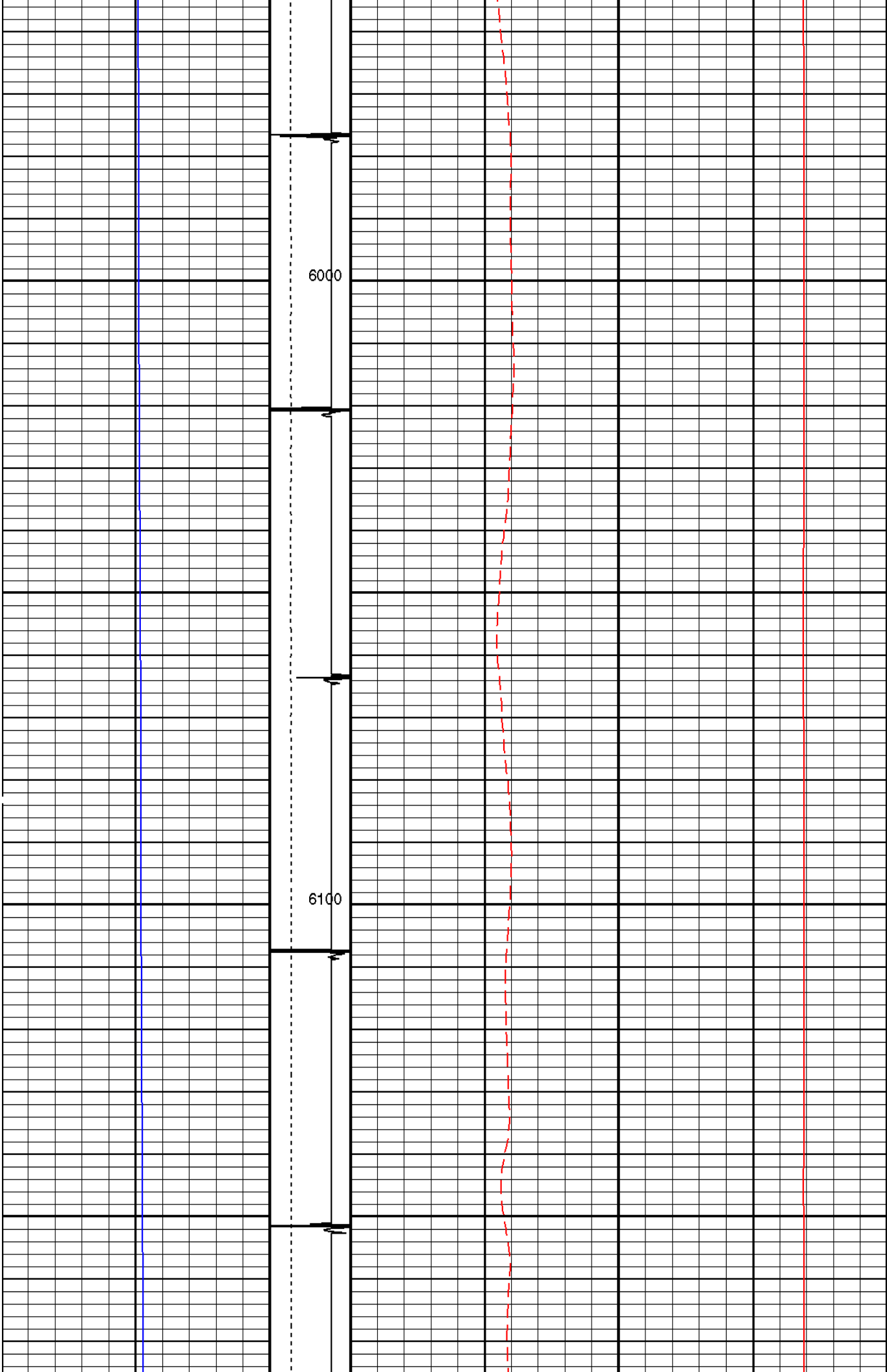


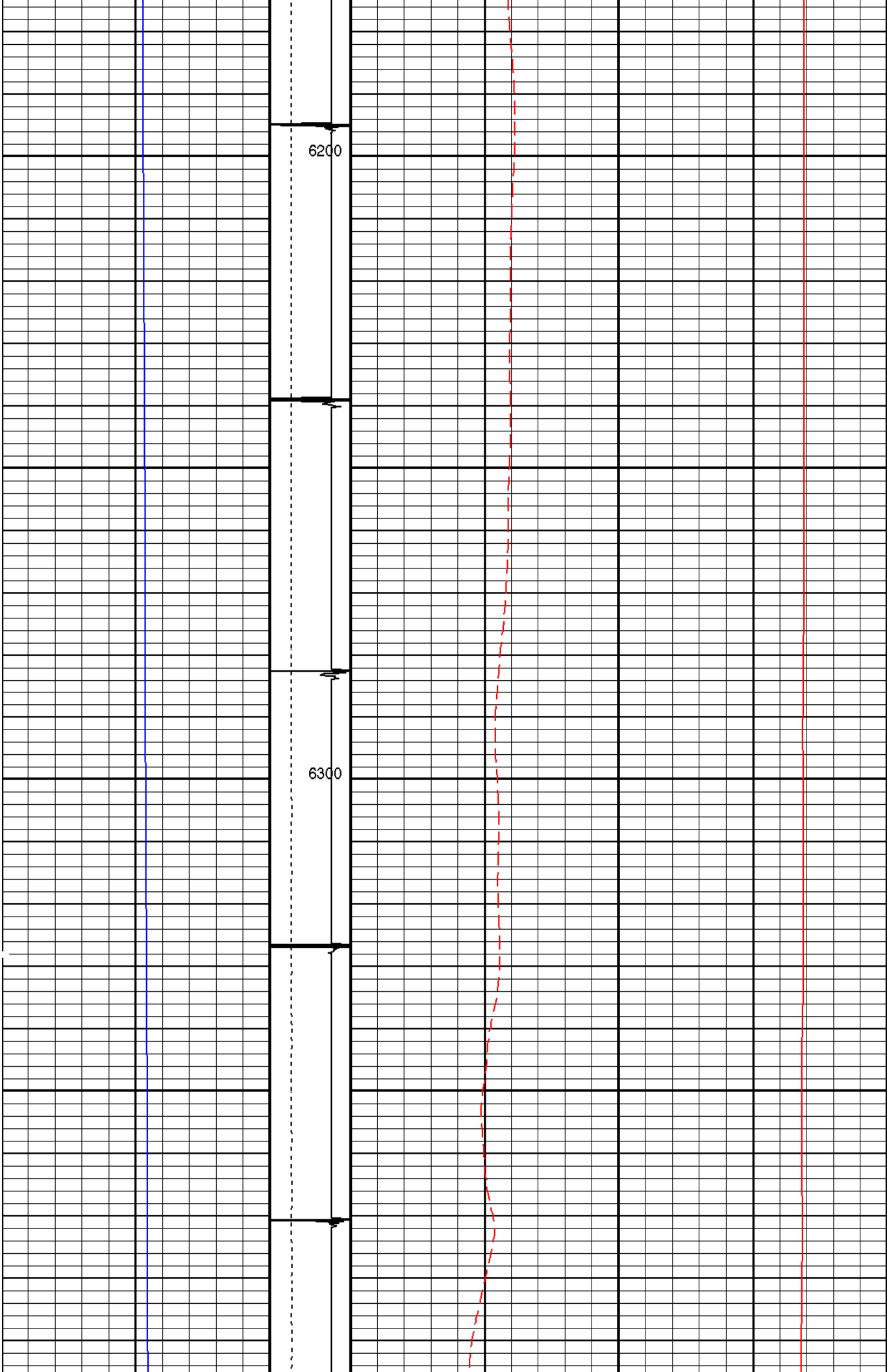


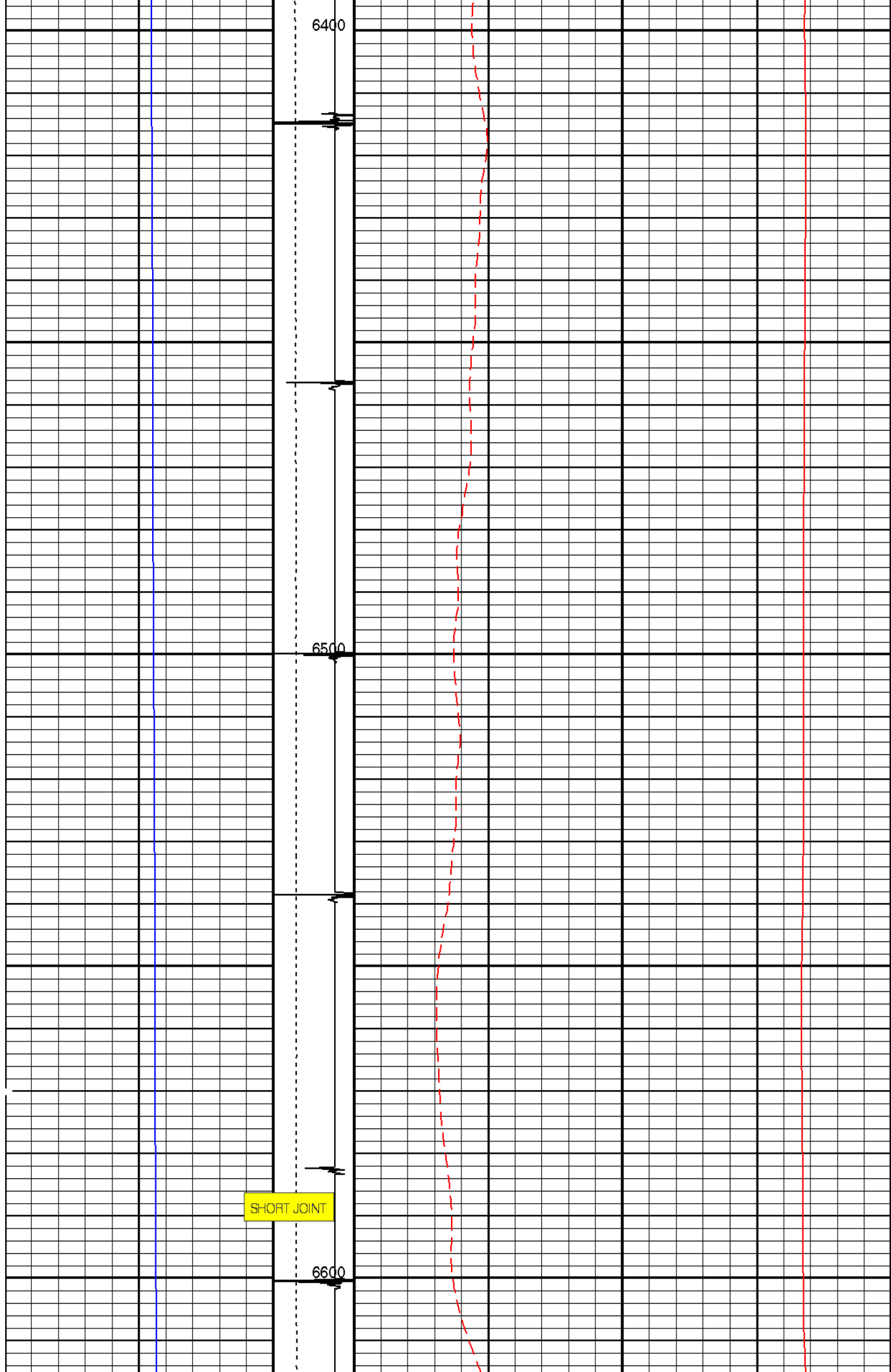


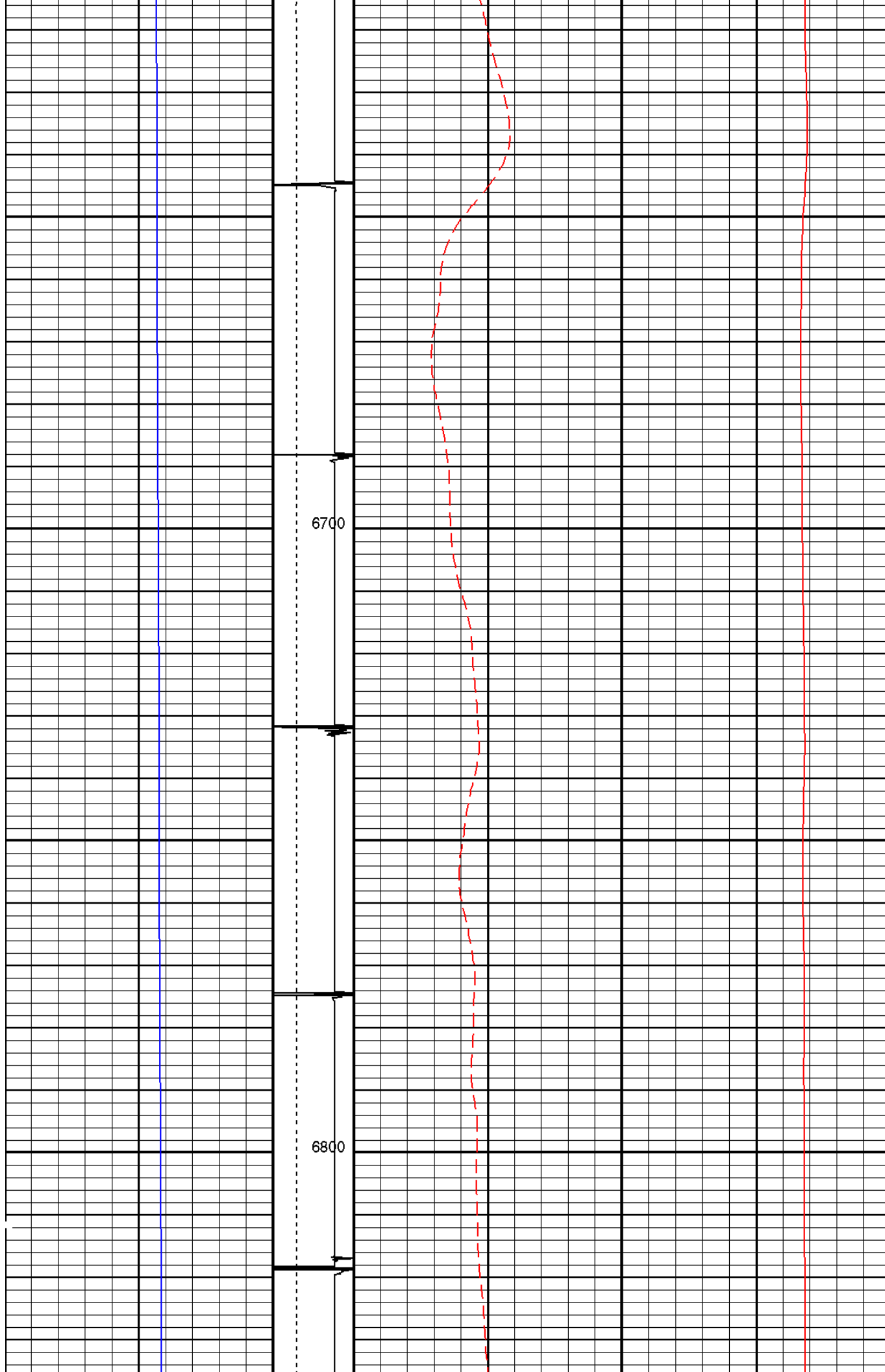


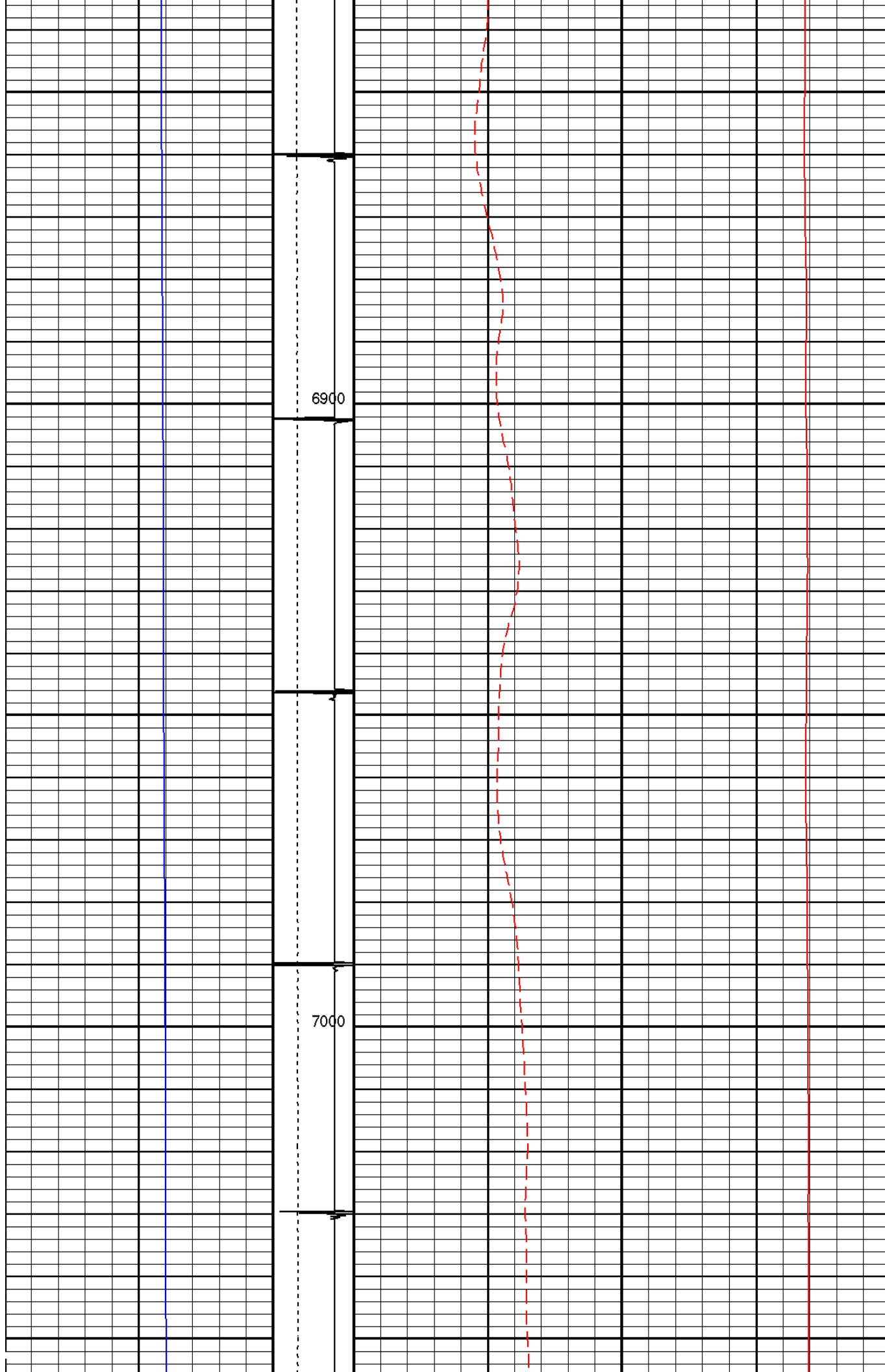


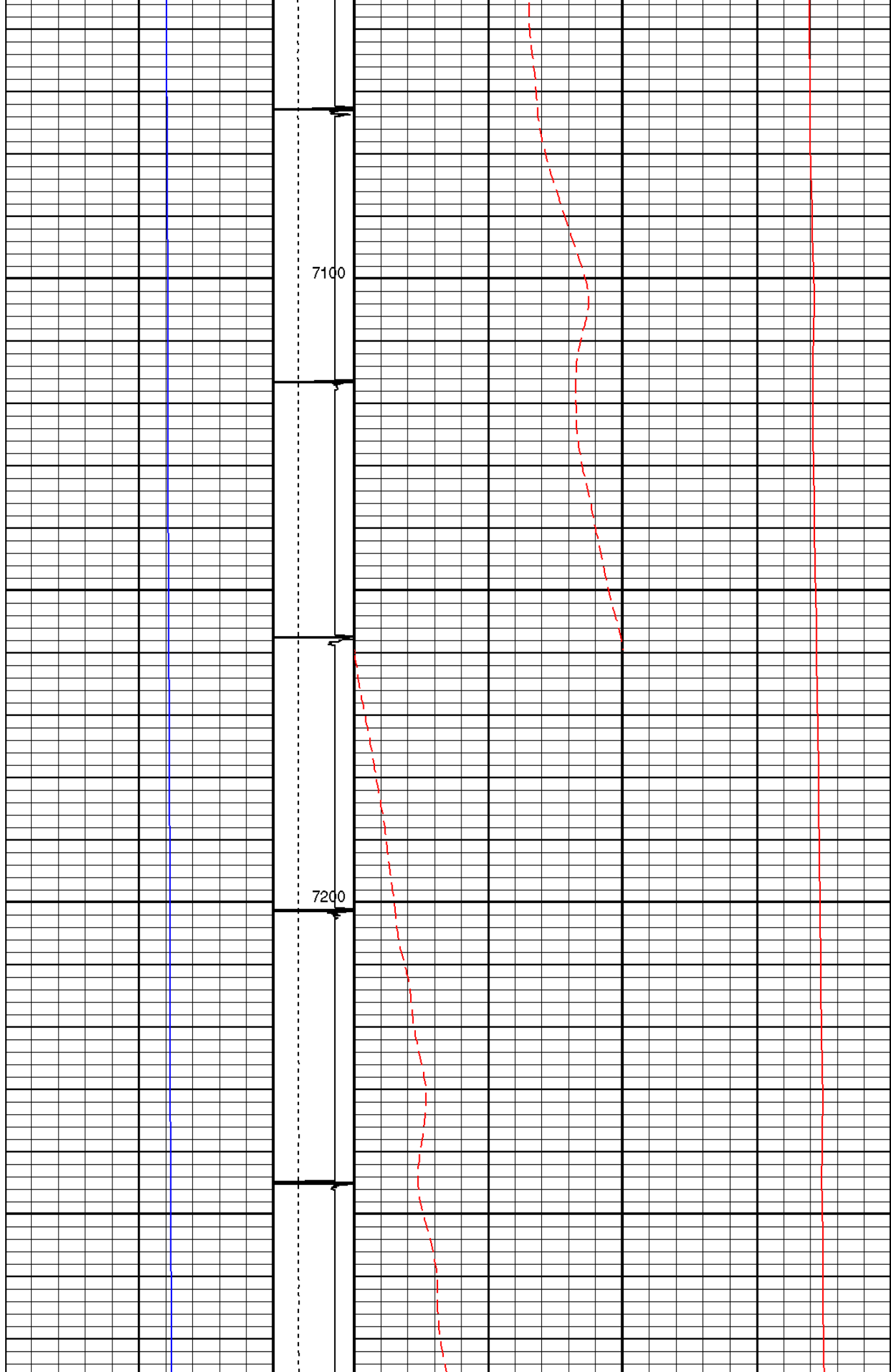


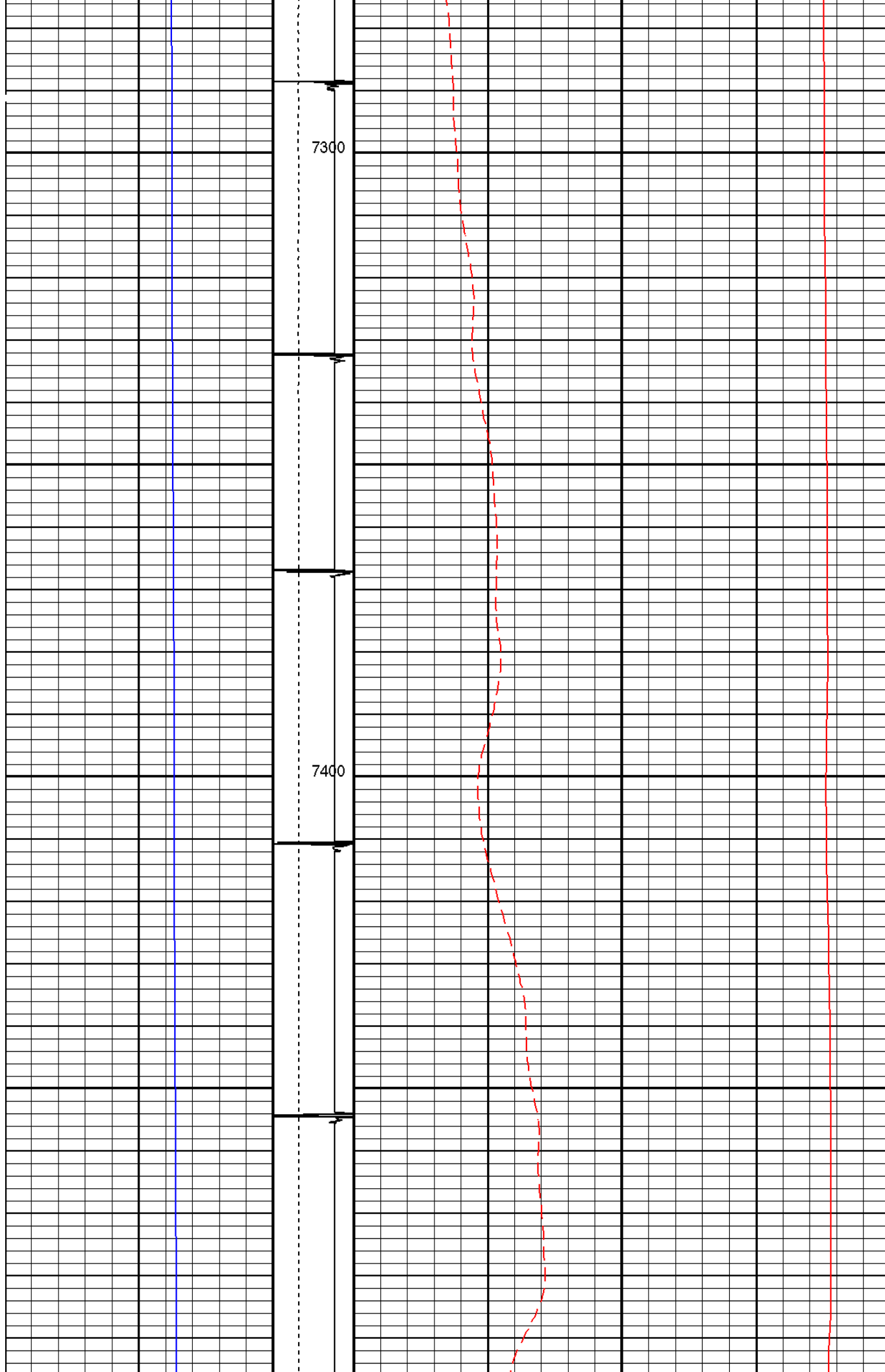


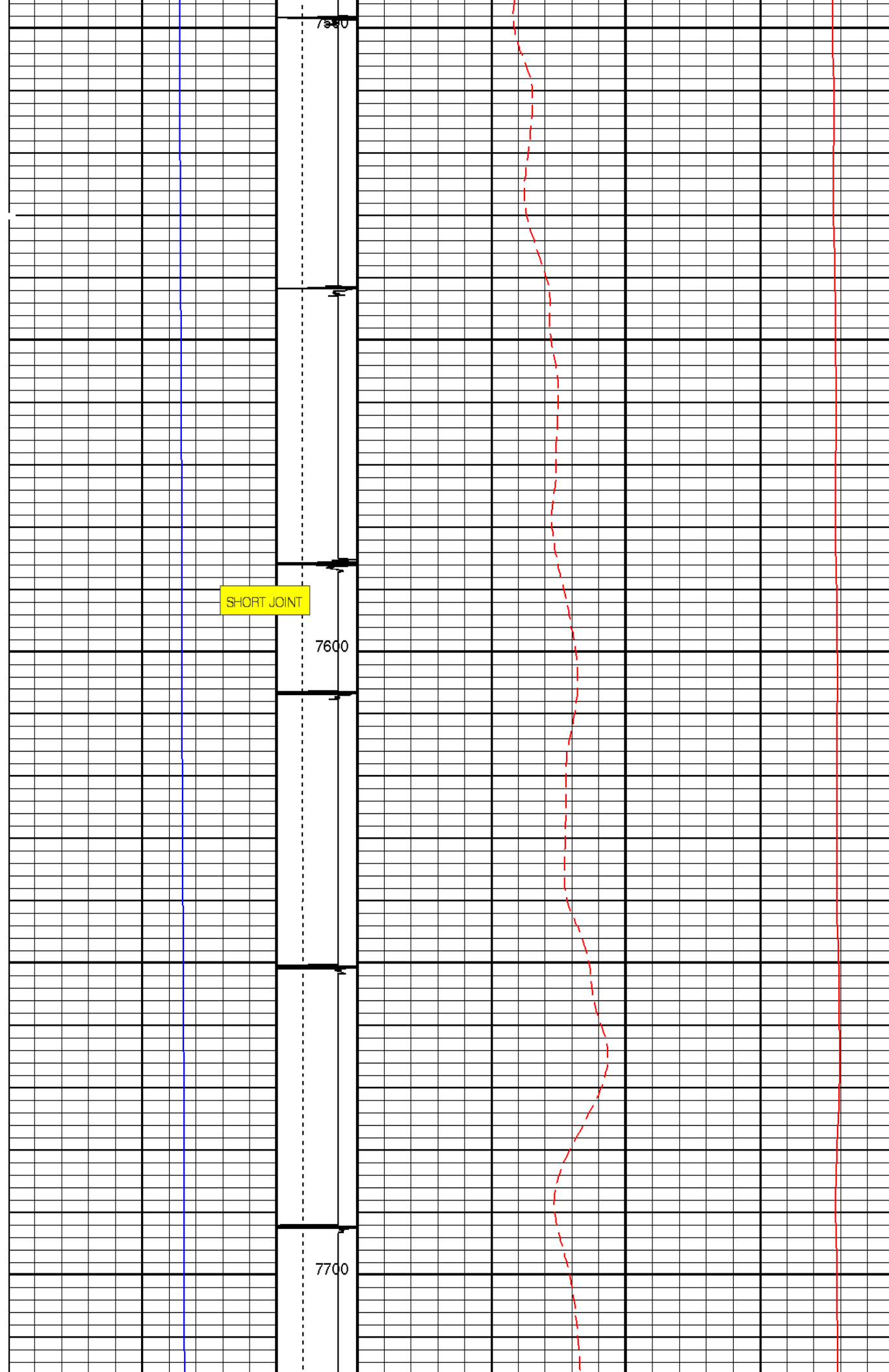


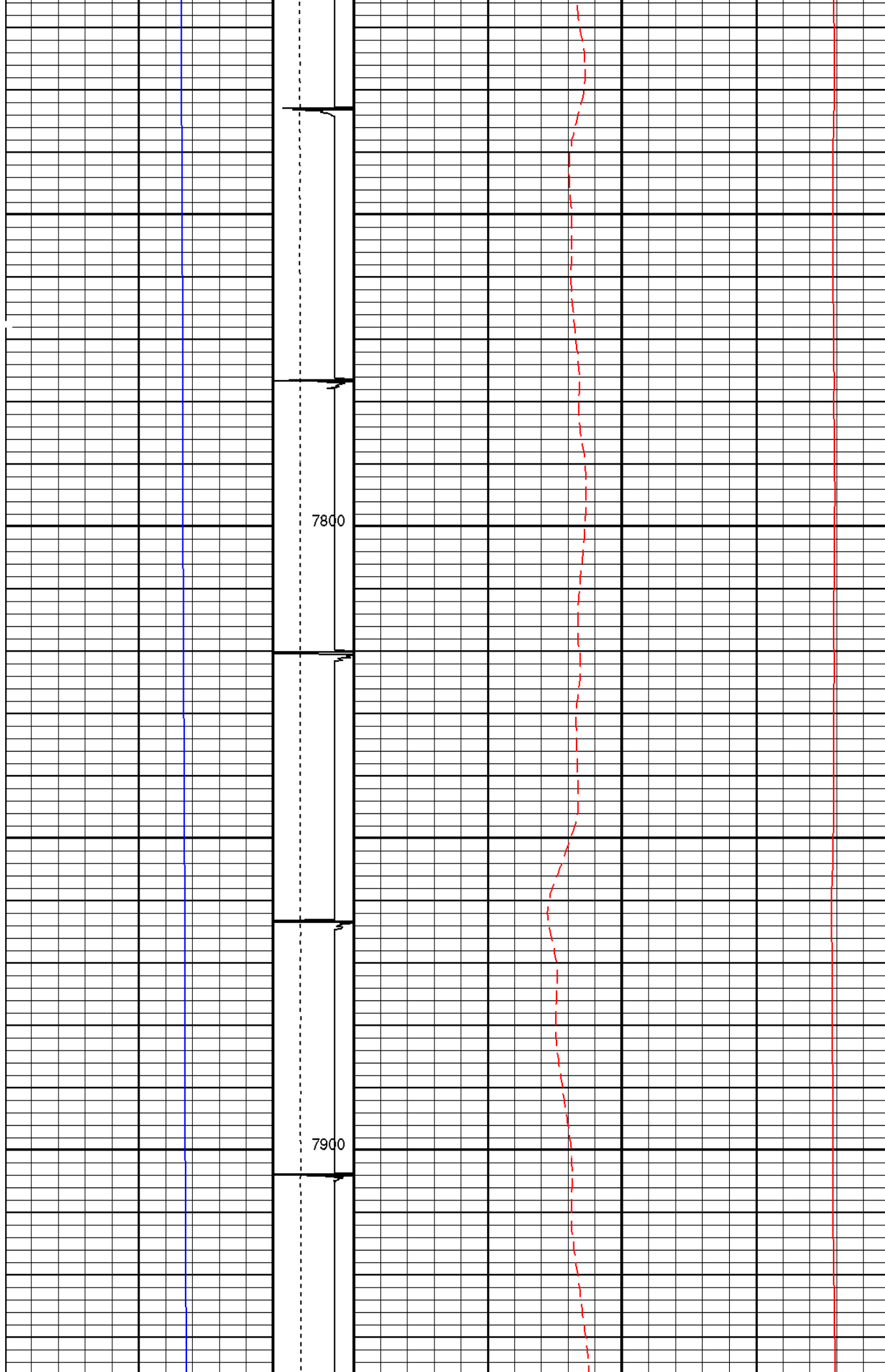


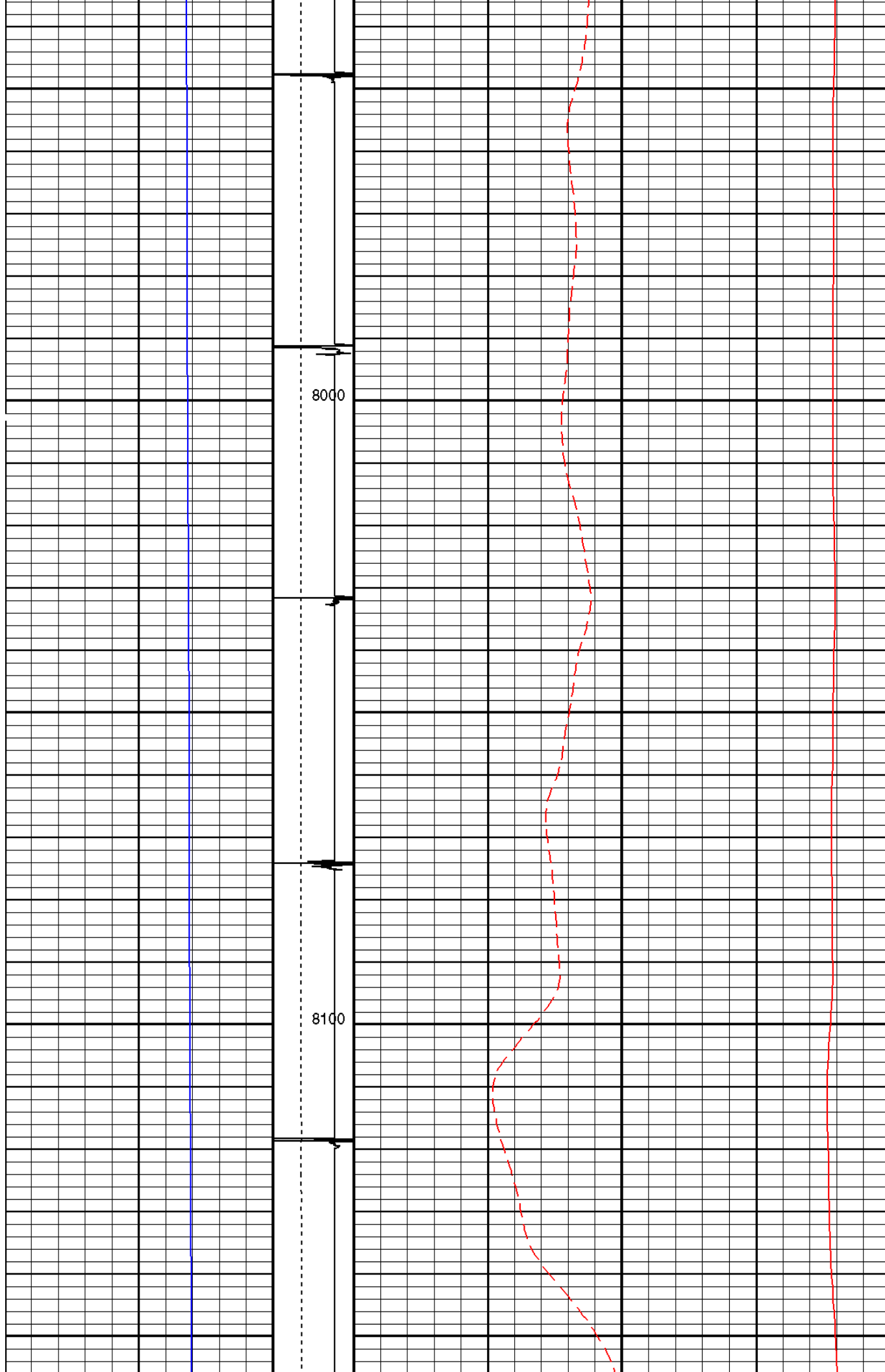


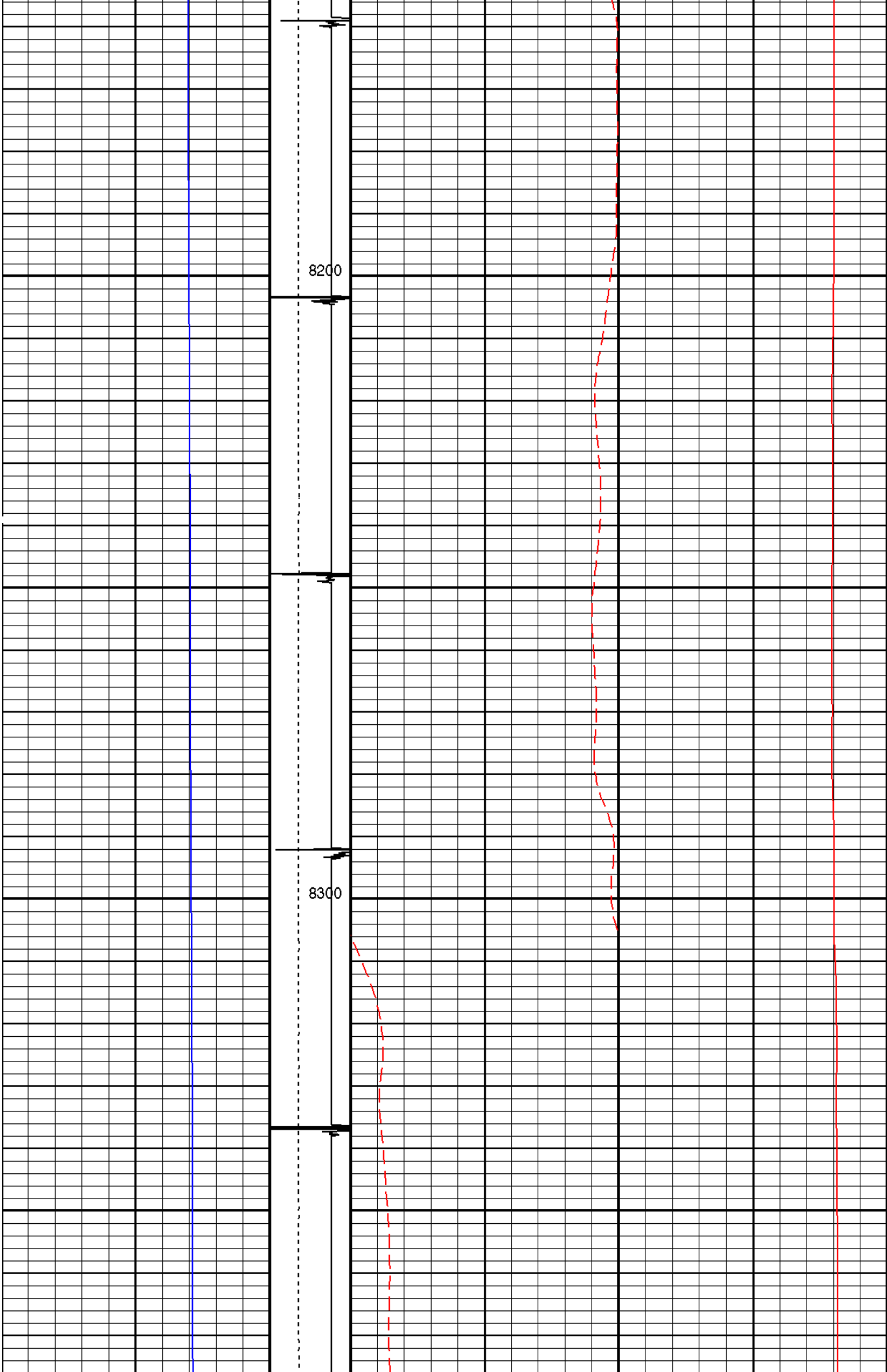


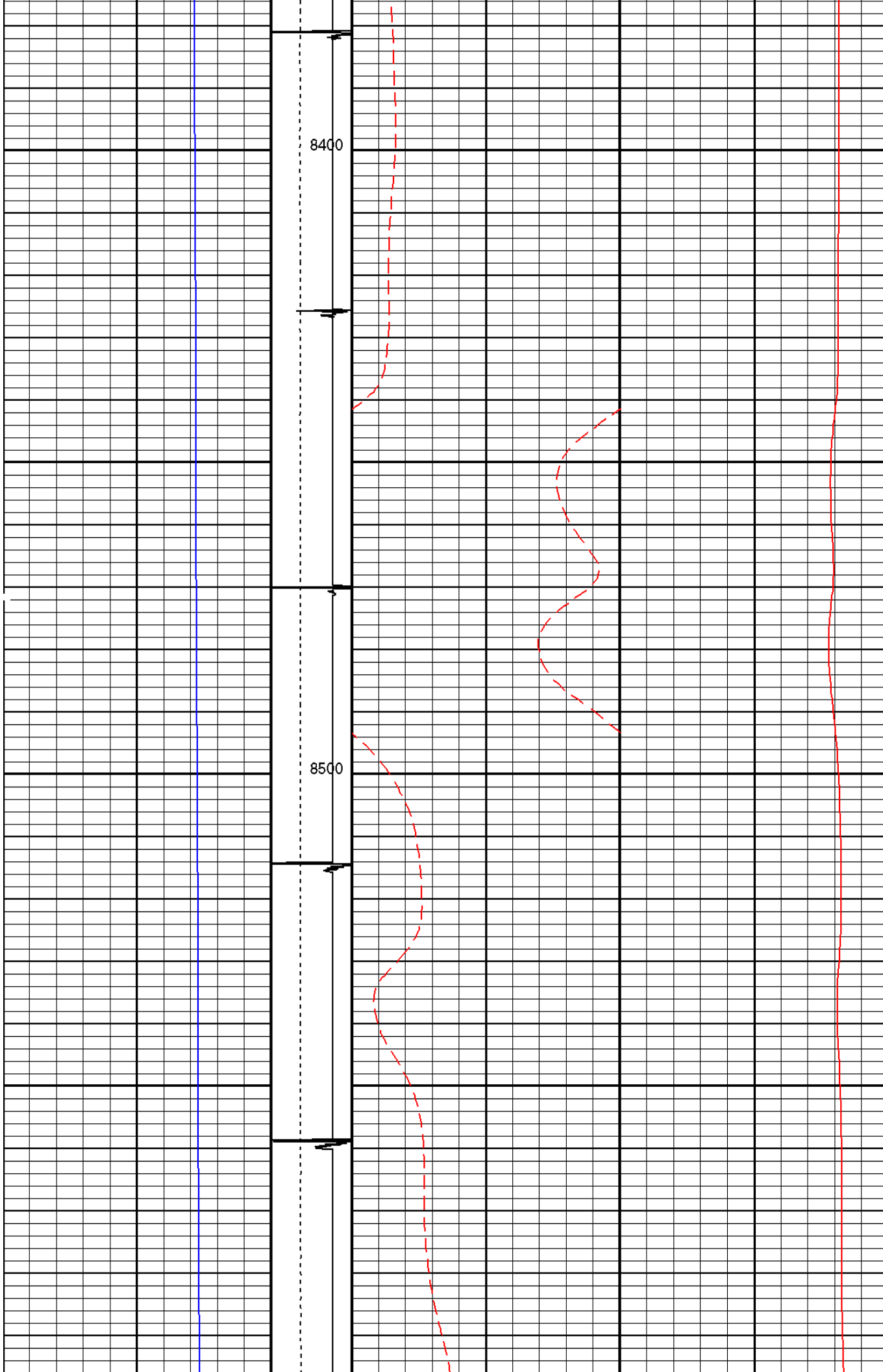


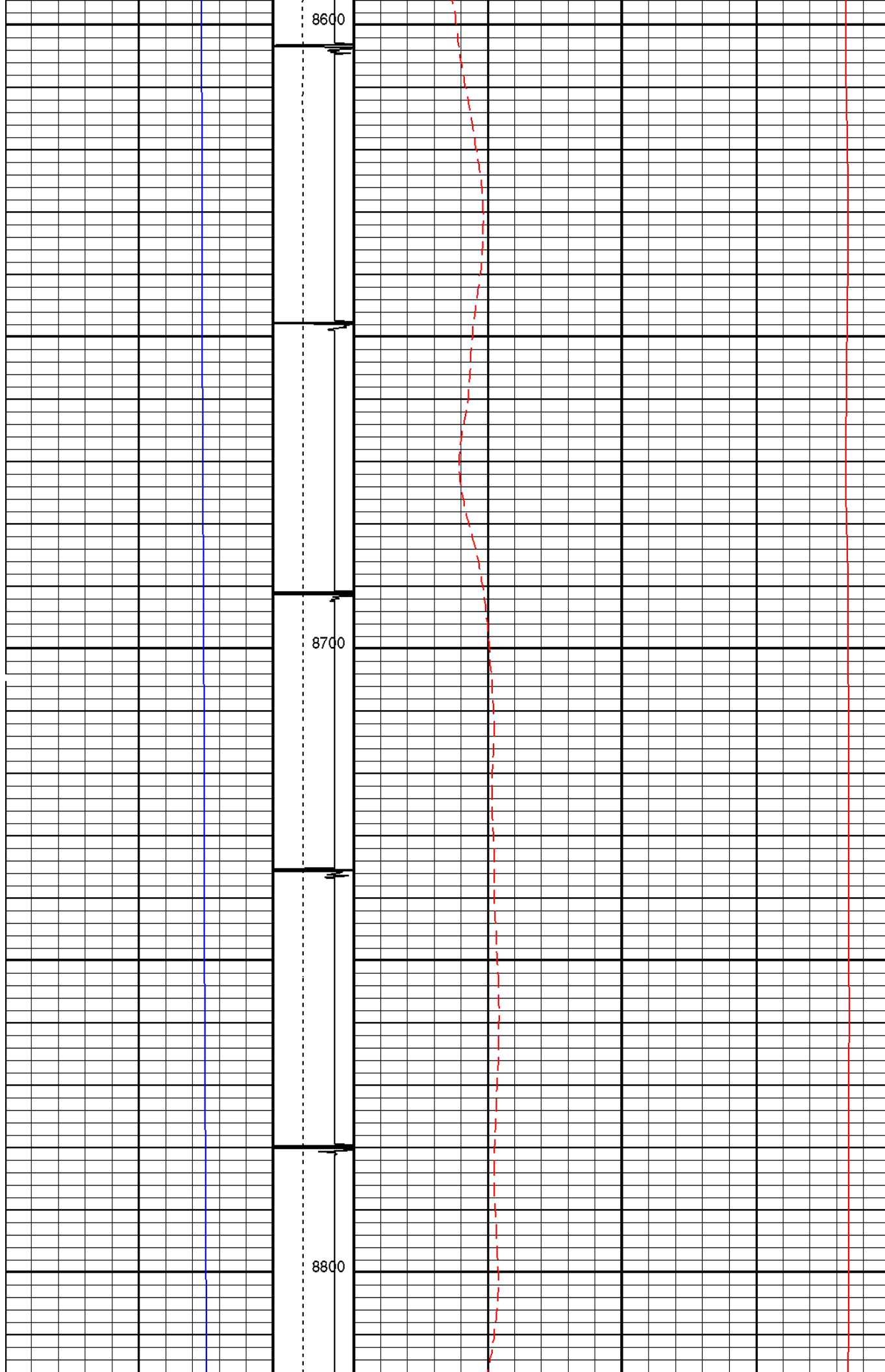


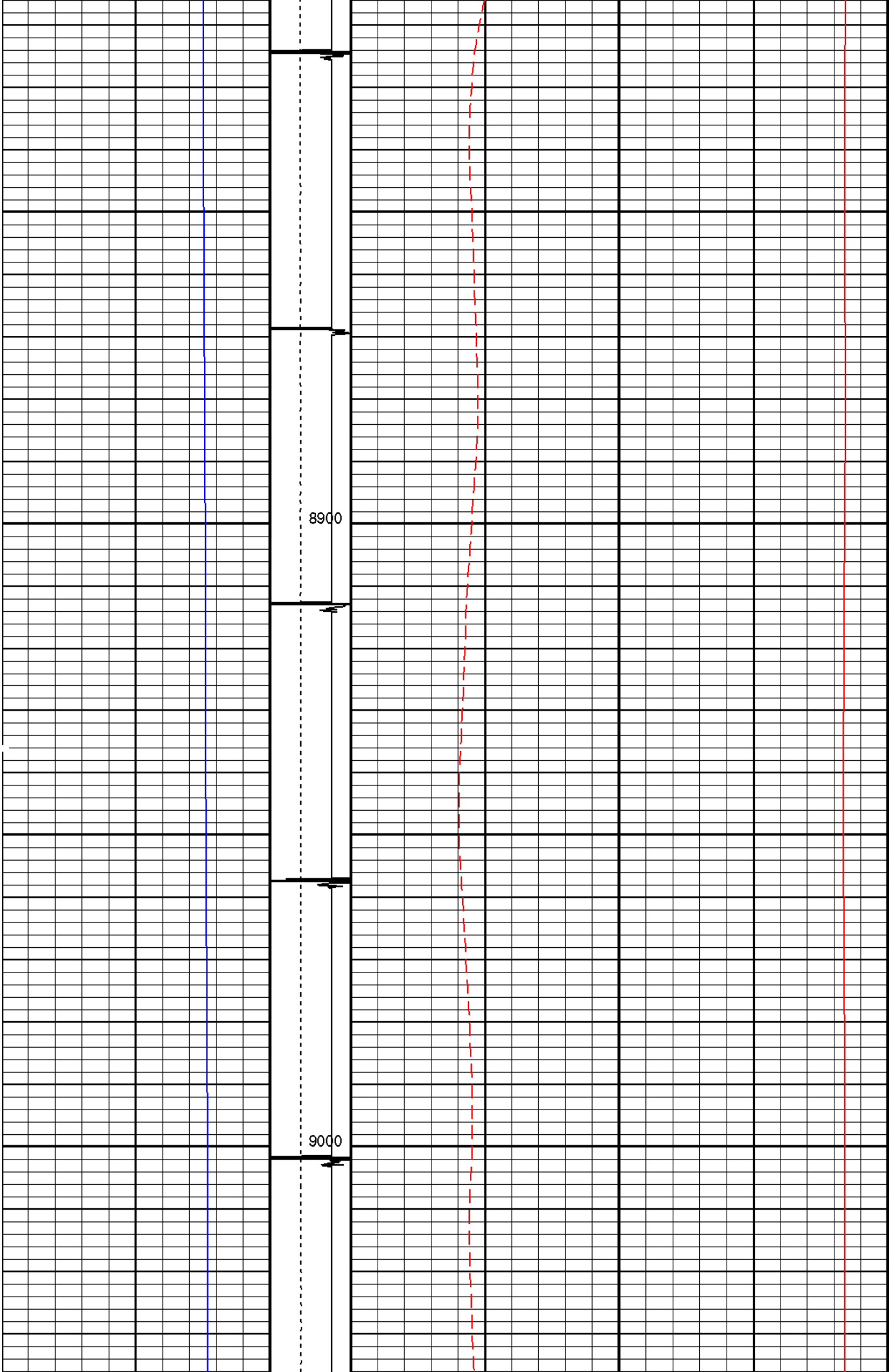


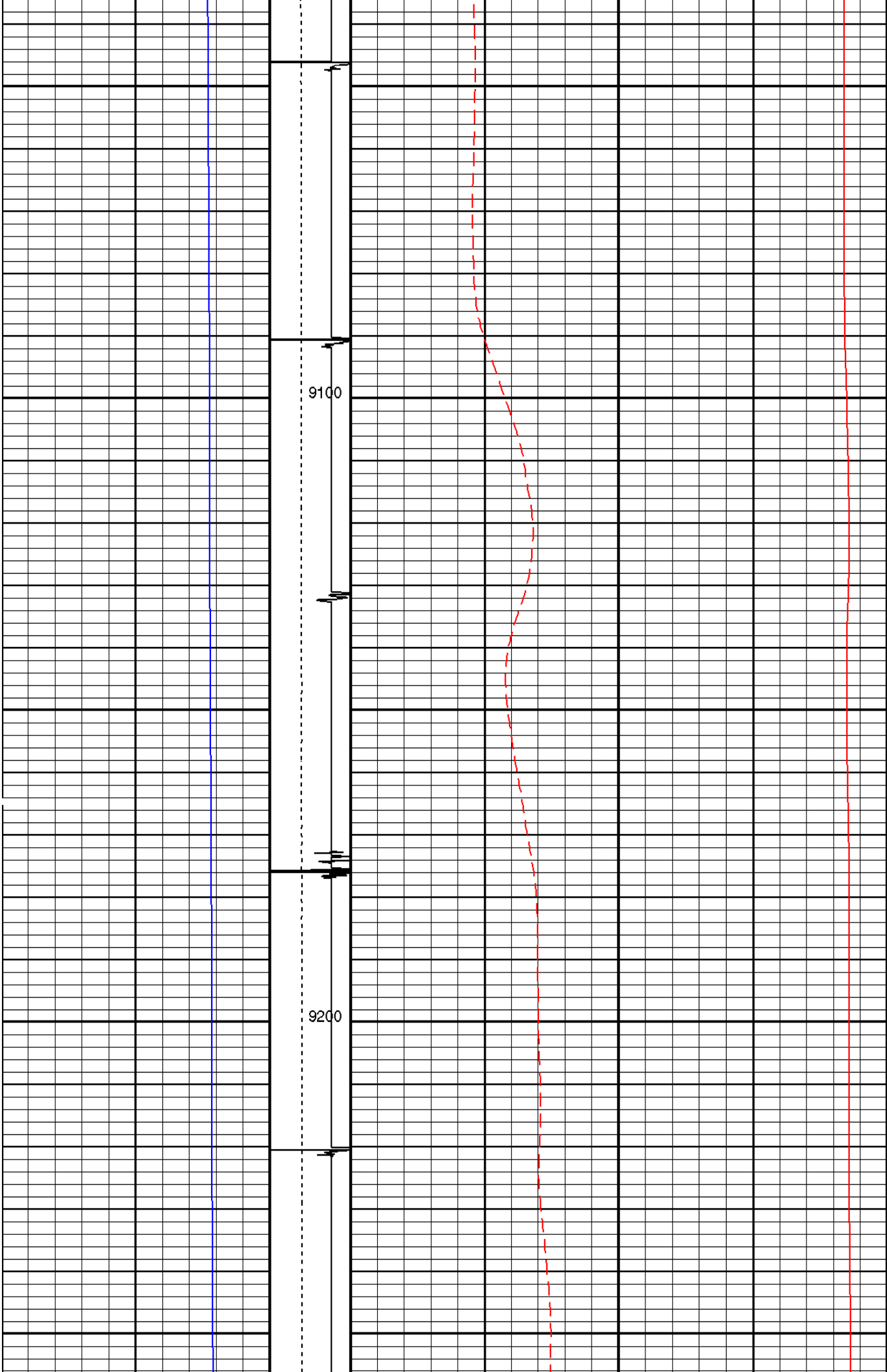


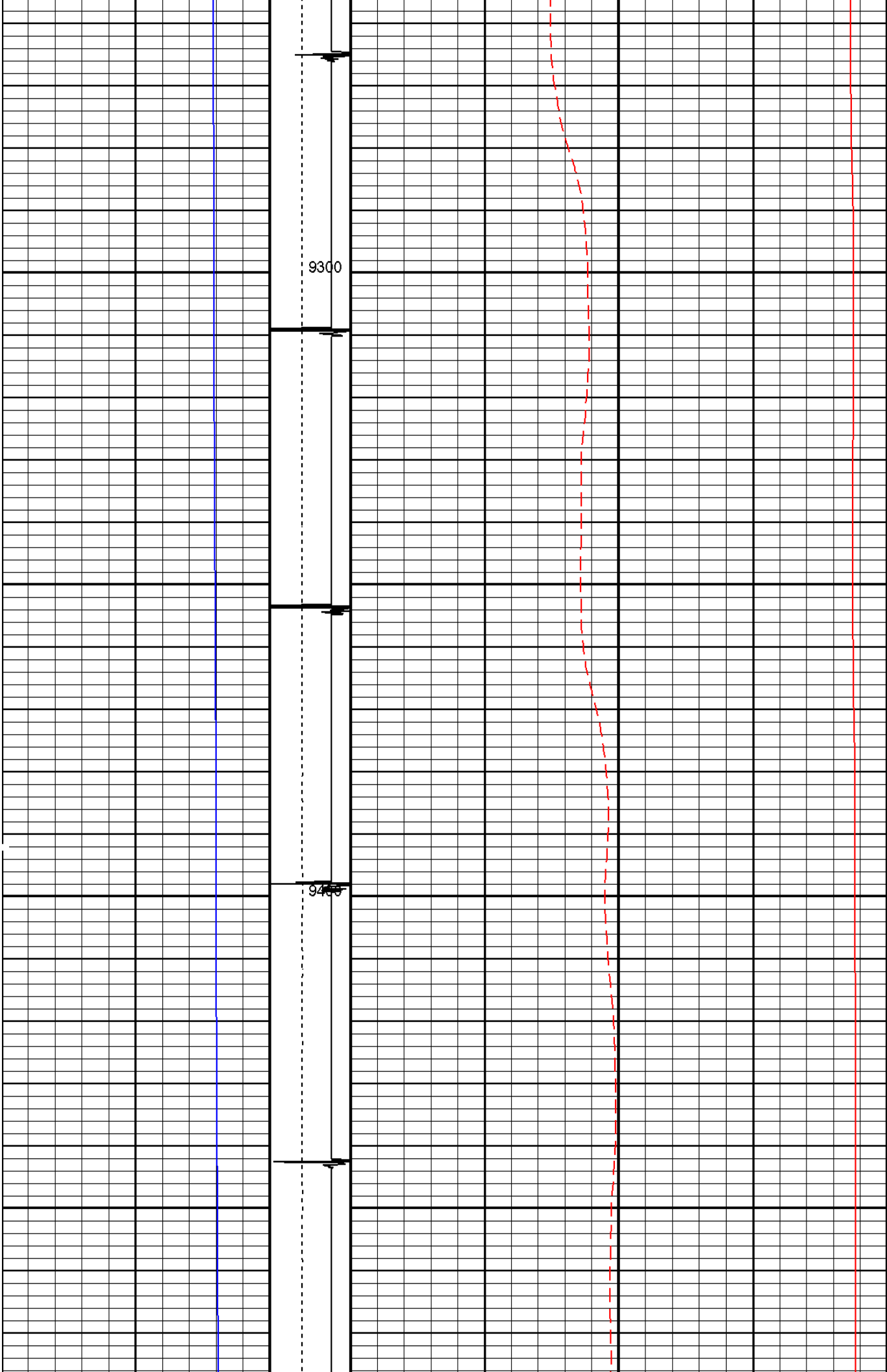






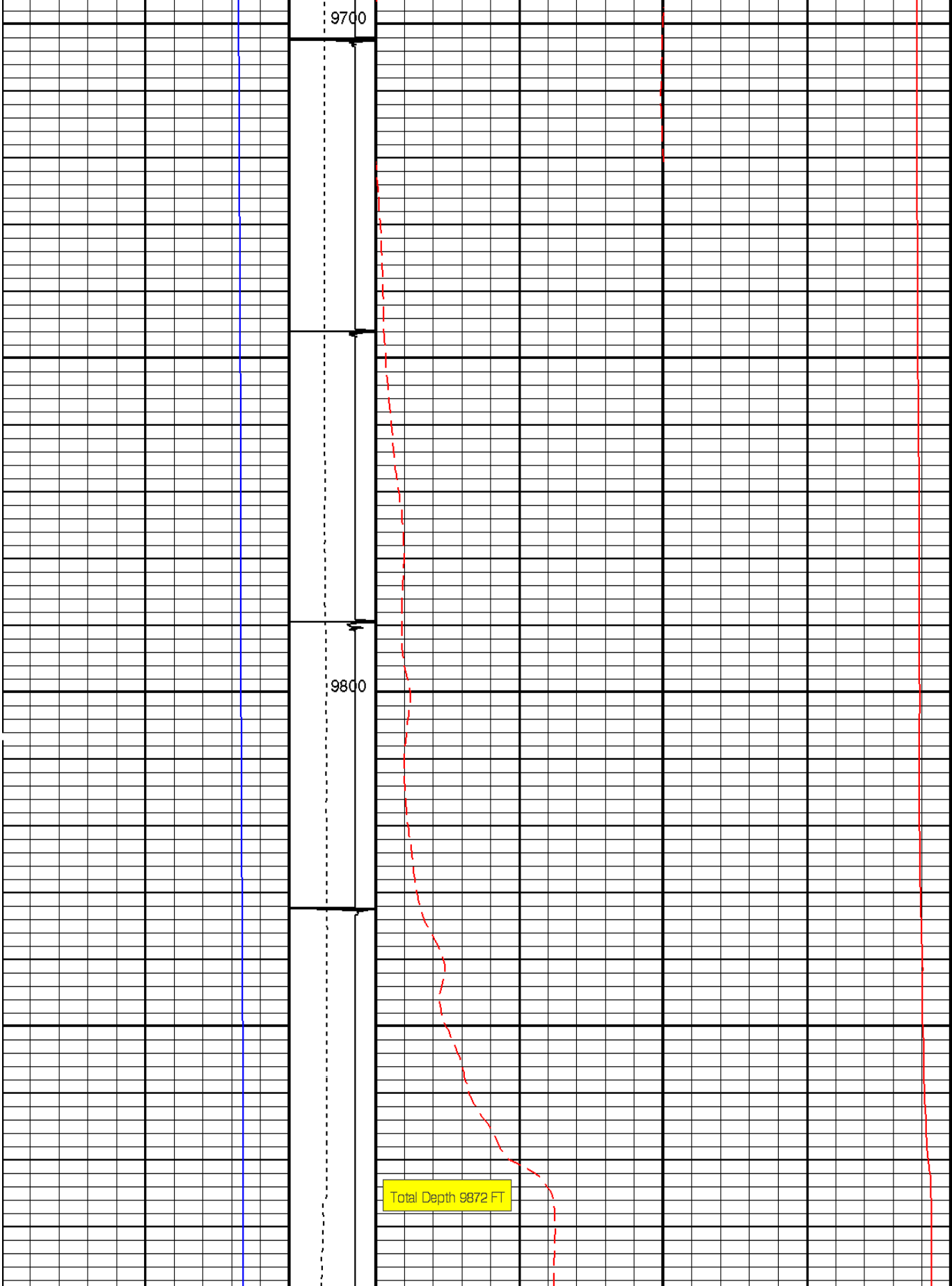







9500

9600



Well Pressure (WP) (PSIA)		Tension (TENS) (LBF)	Well Temperature (WTEP) (DEGF)		Well Temperature (WTEP) (DEGF)
0	5000	0 2000	0	200	250
		Discriminat ed CCL (CCLD)			
		3 (V) -1			

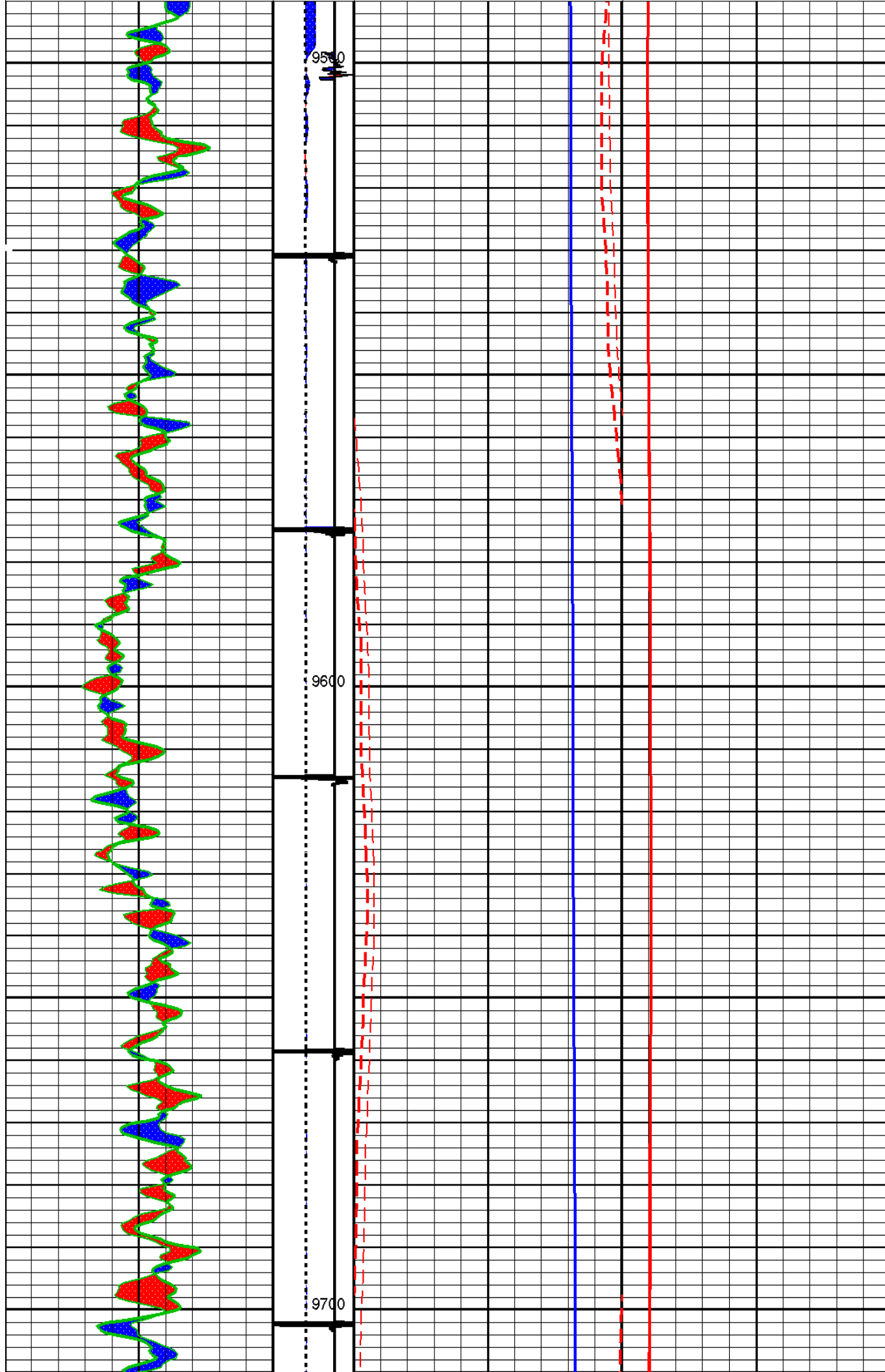
PIP SUMMARY					
Time Mark Every 60 S					
Parameters					
DLIS Name		Description		Value	
DO		System and Miscellaneous			
PP		Depth Offset for Playback		0.0 FT	
		Playback Processing		RECOMPUTE	
Format: TEMP LOG		Vertical Scale: 5" per 100'		Graphics File Created: 09-Nov-2013 20:35	
OP System Version: 18C0-147					
PSPT		18C0-147			
Input DLIS Files					
DEFAULT		FLIP_PSP_004		PRODUCER 09-Nov-2013 20:25 9889.4 FT -7.5 FT	
Output DLIS Files					
DEFAULT		PSP_008PUP		FN:5 PRODUCER 09-Nov-2013 20:35	

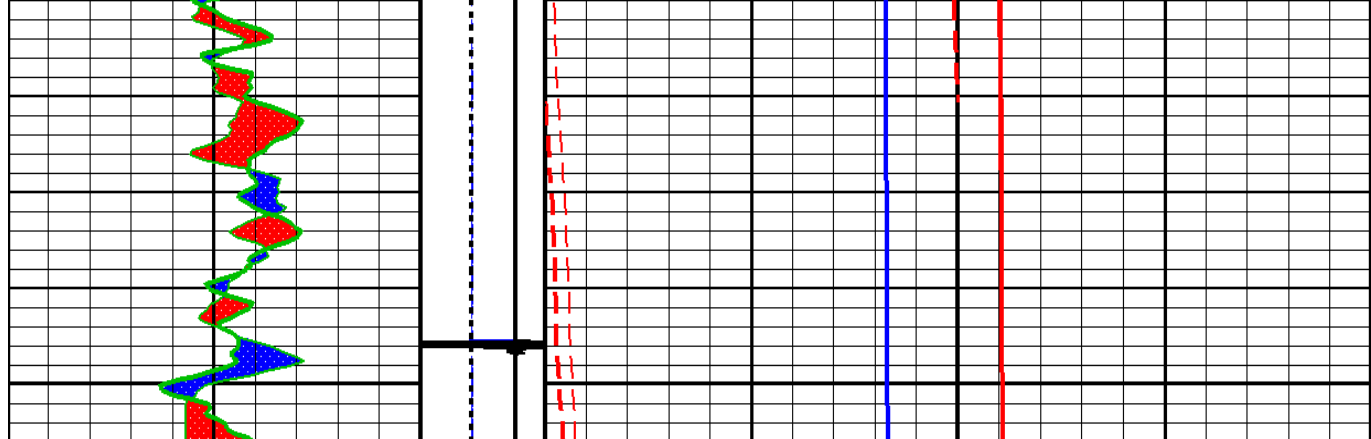


REPEAT PASS

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC				Well: HMU 6-11A (J6SEB)		
Input DLIS Files						
DEFAULT	FLIP_PSP_005		PRODUCER	09-Nov-2013 20:25	9756.0 FT	9489.5 FT
DEFAULT	PSP_008PUP	FN:5	PRODUCER	09-Nov-2013 20:35	9889.0 FT	-7.5 FT
Output DLIS Files						
DEFAULT	PSP_009PUP	FN:6	PRODUCER	09-Nov-2013 20:41	9756.0 FT	9489.5 FT
OP System Version: 18C0-147						
PSPT	18C0-147					
PIP SUMMARY						
Time Mark Every 60 S						
		TENS_REP Curve (TENS_Rep) (LBF)	WPRE_REP Curve (WPRE_REP)			
		0 2000	0 (PSIA) 10000			
GR_REP Curve (GR_REP)		CCLD_REP Curve (CCLD_Rep) (V)	WTEP_REP Curve (WTEP_REP)		WTEP_1_REP Curve (WTEP_REP)	
0 (GAPI) 150		3 -1	0 (DEGF) 20		0 (DEGF) 200	





GR_REP Curve (GR_REP) 0 (GAPI) 150	CCLD_REP Curve (CCLD_REP) 3 (V) -1	WTEP_REP Curve (WTEP_REP) 0 (DEGF) 20 0	WTEP 1 REP Curve (WTEP_REP) 0 (DEGF) 200
	TENS_REP Curve (TENS_REP) 0 (LBF) 2000	WPRES_REP Curve (WPRES_REP) 0 (PSIA) 10000	

PIP SUMMARY

☒ Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
System and Miscellaneous DO Depth Offset for Playback DORL Depth Offset for Repeat Analysis PP Playback Processing		0.0 FT 0.0 FT RECOMPUTE

Format: TEMP LOG_REP Vertical Scale: 5" per 100' Graphics File Created: 09-Nov-2013 20:41

OP System Version: 18C0-147

PSPT 18C0-147

Input DLIS Files

DEFAULT	FLIP_PSP_005	PRODUCER	09-Nov-2013 20:25	9756.0 FT	9489.5 FT
DEFAULT	PSP_008PUP	FN:5	PRODUCER	09-Nov-2013 20:35	9889.0 FT
					-7.5 FT

Output DLIS Files

DEFAULT	PSP_009PUP	FN:6	PRODUCER	09-Nov-2013 20:41
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Schlumberger

COEFFICIENTS

MAXIS Field Log

Field: MAMM CREEK
Well: HMU 6-11A (J6SEB)
Run date: 9-Nov-2013

Sub Type: PBMS
Sensor: GR

PBMS Gamma Ray

Sonde Serial NB RESISTORS FOR GR SENSOR N.33155, TOOL PBMS-BA0861. SENSOR S/N:
Sensor Serial NB 33155
Calib Date ddmmyy 220499
Matrix Size 12
Coeff CRC 0710

GR HV Rt

	Rt**0	Rt**1
Rt**0	+.237000000000e+04	+.332000000000e+04

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: HMU 6-11A (J6SEB)
Run date: 9-Nov-2013

Tool: PSP
Sub Type: PBMS
Sensor: WellTemp RTD

PBMS RTD Well Thermometer

Sonde Serial NB COEFFICIENTS FOR RTD THERMOMETER PBMS-B.861 S/N:
Sensor Serial NB 861
Calib Date ddmmyy 310502
Matrix Size 16
Coeff CRC DEC6

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt**0	-.143179842319E+03	-.888852291415E+02	+.731918491078E+02
	Tt**3	Tt**4	Tt**5
Tt**0	-.118395145374E+02	+.745799453953E+00	0.0

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: HMU 6-11A (J6SEB)
Run date: 9-Nov-2013

Tool: PSP
Sub Type: PBMS
Sensor: CQG

PBMS Quartz Gauge type F

Sonde Serial NB COEFFICIENTS FOR CQG PBMS-B.861 S/N:
Sensor Serial NB 861
Calib Date ddmmyy 310502
Matrix Size 66
Coeff CRC 596C

Pres Coeff

	Fb**0	Fb**1	Fb**2
Fc**0	+.711550762736E+04	+.153878897800E-01	-.257179234978E-06
Fc**1	-.105337091645E+01	-.125552962261E-04	-.950503832919E-10
Fc**2	+.115225841409E-05	+.490354586520E-10	+.105988949651E-14
Fc**3	+.883393528945E-12	+.665635296961E-16	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

	Fb**3	Fb**4	Fb**5
Fc**0	-.804211610994E-10	-.705264184158E-15	-.605951709459E-19
Fc**1	+.263504457670E-15	+.366947427014E-19	0.0
Fc**2	0.0	0.0	0.0
Fc**3	0.0	0.0	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB :
Sensor Serial NB 861
Calib Date ddmmyy 310502
Matrix Size 66

Coeff CRC

73C2

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+.114909007864E+03	-.261563620571E-03	+.727201308276E-08
Fb**1	-.599411471804E-02	+.192684257496E-07	+.149578546349E-12
Fb**2	-.320292169705E-07	+.373670664357E-12	+.871958109779E-18
Fb**3	-.307852303739E-12	+.927295382637E-17	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0
	Fc**3	Fc**4	Fc**5
Fb**0	+.182108938515E-12	-.195543095905E-16	-.228467332529E-20
Fb**1	-.413038704885E-17	-.706757563488E-21	0.0
Fb**2	0.0	0.0	0.0
Fb**3	0.0	0.0	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB :
 Sensor Serial NB 861
 Calib Date ddmmyy 310502
 Matrix Size 16
 Coeff CRC C7E9

Clock Freq Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.310508075363E+05	+.294368299940E-02	+.769893562204E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.664433457831E-10	-.367102372803E-16	-.149627163753E-19

PBMS Quartz Gauge type F

Sonde Serial NB :
 Sensor Serial NB 861
 Calib Date ddmmyy 310502
 Matrix Size 16
 Coeff CRC 57FD

Clock Temp Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.117831722096E+03	-.563036688315E-02	-.289752074861E-07

	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	+.424868386643E-12	-.842142459987E-16	+.376543844967E-20

Company: **ENCANA OIL & GAS (USA) INC**

Schlumberger

Well: **HMU 6-11A (J6SEB)**
Field: **MAMM CREEK**
County: **GARFIELD**
State: **COLORADO**

TEMPERATURE LOG
CCL - TEMPERATURE